

***FINAL REPORT FOR REMEDIATION OF LOCATIONS
IN GRANITE CITY, MADISON, AND VENICE, ILLINOIS,
ASSOCIATED WITH NL INDUSTRIES/TARACORP
SUPERFUND SITE***

***PRE-PLACED CONTRACT NO. DACW45-89-D-0506
DELIVERY ORDER NO. 0017***

BOOK 1 OF 2

Submitted to:

United States Army Corps of Engineers
Omaha, Nebraska

Submitted by:

OHM Remediation Services Corp.
a subsidiary of



OHM Corporation

November 22, 1996
Project 16473

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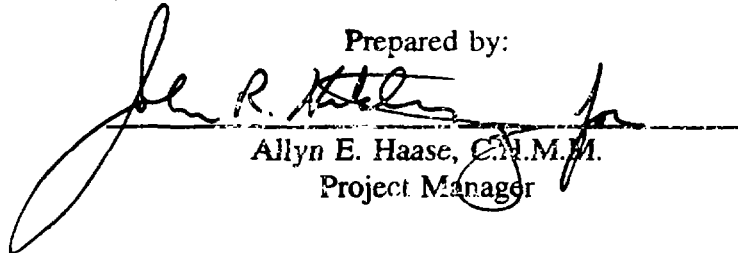
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Submitted by:



OHM Remediation Services Corp.
Midwest Region

Prepared by:


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**November 22, 1996
16473**

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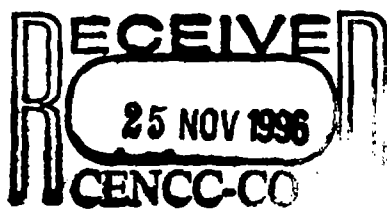
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1.0 INTRODUCTION

The United States Army Corps of Engineers (USACE) tasked OHM Remediation Services Corp. (OHM), a wholly owned subsidiary of OHM Corporation, under the Pre-Placed Contract No. DACW45-89-D-0506, Delivery Order (DO) No. 0017, to perform removal of hard rubber battery case material at various locations associated with the NL Industries/TaraCorp Superfund Site (NL Site) in Granite City, Madison, and Venice, Illinois.

1.1 SITE HISTORY

The NL Site includes the NL Industries/TaraCorp Plant, a former secondary lead smelting operation located at 16th Street and Cleveland Boulevard in Granite City, Illinois. Prior to 1903, the plant included various smelting related equipment and processes. From 1903 to 1983, secondary lead smelting occurred on site. These activities were discontinued during 1983 and the equipment was dismantled.

In July 1981, St. Louis Lead Recyclers, Inc. (SLLR), began using equipment on adjacent property owned by Trust 454 to separate components of the TaraCorp waste pile. The objective was to recycle lead-bearing materials to the furnaces at TaraCorp and send hard rubber off site for recycling. SLLR continued operations until March 1983, when it shut down its equipment. Residuals from the operation remain on Trust 454 property, as does some equipment.

A State Implementation Plan for Granite City, Illinois, was published in September 1983 by the Illinois Environmental Protection Agency (IEPA). The IEPA's report indicated that the lead nonattainment problem for air emissions in Granite City, Illinois, was in large part due to emissions associated with the operation of the secondary lead smelter by TaraCorp and lead reclamation activities conducted by SLLR. The IEPA procured Administrative Orders by Consent with TaraCorp; SLLR; Stackcorp, Inc.; Tri-City Truck Plaza, Inc.; and Trust 454 during March 1984. The orders required the implementation of remedial activities relative to air quality.

NL Industries, as former owner of the location, voluntarily entered into an Agreement and Administrative Order by Consent with the United States Environmental Protection Agency (USEPA) and IEPA in May 1985 to implement a remedial investigation/feasibility study (RI/FS) for the location and other potentially affected areas. TaraCorp was not a party to the agreement due to the fact that it filed for bankruptcy. USEPA determined that the location was a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) facility and it was placed on the National Priorities List on June 10, 1986.

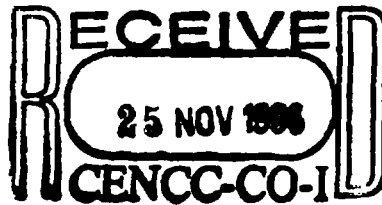
1.2 DOCUMENT ORGANIZATION

This final project report is intended to provide a detailed description of the tasks involved in performing the work. Section 2.0 describes the scope of work involved in preparation of the site-specific plans; performance of site administration/logistical support;



1.0 INTRODUCTION

mobilization/demobilization; site preparation/teardown; and the operational/technical scope of work performed. Section 2.0 also compares the actual scope of work performed with the planned scope of work in general terms. Section 3.0 describes the technical approaches implemented to accomplish the operational and technical tasks of the project, including sampling, analysis, waste transportation, and waste disposal. Section 4.0 describes the health and safety approaches implemented to accomplish the operational tasks of the project. Sections 5.0 and 6.0 contain the quantity summary table and verification analytical summary table, respectively. Appendix A provides detailed descriptions of the work performed at each remedial location. Tables and maps detailing the sampling and analysis—as well as copies of all laboratory analytical results for confirmation samples and waste characterization/disposal samples at each of the remedial locations—are also included in this appendix.



2.0 SCOPE OF WORK

The scope of work for this project was delineated by a document supplied to OHM by USACE entitled: Revised Final Scope of Work for Contract DACW45-89-D-0506; DO No. 0017 Rapid Response, NL Industries/TaraCorp, Granite City, Illinois.

The scope of work generally encompassed the following tasks:

- ▶ Preparation of site-specific plans
- ▶ Site administration and logistical support
- ▶ Mobilization and demobilization
- ▶ Site preparation and teardown
- ▶ Excavation of contaminated soils and battery chips
- ▶ Operational scope of work
- ▶ Sampling and analysis for confirmation of cleanup, including both field screening and laboratory analysis methods
- ▶ Waste transportation and disposal

2.1 PREPARATION OF SITE-SPECIFIC PLANS

OHM prepared a site-specific project work plan (WP) to serve as a guideline for how the work would be performed in order to meet requirements specified by USACE. The WP also included the chemical data acquisition plan (CDAP) and the location-specific safety and health plan (LSSHPP).

Variances to the WP occurred during the project, but were conducted only under authorization/direction of the USACE on-site representative. His/her purpose was to allow the project to function more efficiently while still remaining within all regulatory requirements. These variances are referenced and described in the relevant sections of this report.

The CDAP was prepared as a guideline to describe how, where, and how many samples would be collected. It also delineated how the samples were to be field screened, if necessary. The laboratory analysis methods to be used, per the requirements of USACE's revised scope of services, were also outlined in the CDAP. In response to existing field conditions, this CDAP was amended to add the quality assurance project plan (QAPP) during the actual performance of work (see Section 2.6 for these amendments).



The LSSHP was prepared as a guideline to describe the health and safety procedures which would be followed during the performance of the project. It addressed physical, chemical, and environmental hazards unique to this project site. This LSSHP was amended during the project to allow remedial work to be performed by personnel wearing modified USEPA Level D personal protective equipment (PPE). The results of air monitoring indicated that personnel—wearing polyvinyl tyvek suits, booties, gloves, hard hats, and safety glasses—could safely perform work without the aid of respirators at the remedial locations. Details pertaining to health and safety issues are presented in Section 4.0.

2.2 SITE ADMINISTRATION/LOGISTICAL SUPPORT

Project site administration was centrally located at #10 Farrish in Madison, Illinois. Site administrative activities performed at this location included:

- ▶ Site supervision
- ▶ Cost tracking/reporting
- ▶ Health and safety administration
- ▶ Waste tracking/documentation
- ▶ Field sampling/analytical support
- ▶ Field purchasing/subcontract management
- ▶ Logistical support

Prior to full-scale mobilization, logistical preparation activities were performed, including the following:

- ▶ Conducting a pre-construction meeting
- ▶ Arranging for waste hauling licenses
- ▶ Meeting with property owners
- ▶ Locating utilities at each site
- ▶ Establishing transportation routes
- ▶ Coordinating with local agencies and the hospital

2.3 MOBILIZATION/DEMOBILIZATION

OHM performed mobilization of personnel and equipment primarily from its facility in O'Fallon, Missouri. A large percentage of the heavy equipment utilized on this project came from local vendors acting as subcontractors. OHM demobilized personnel and equipment as work was completed and as the resource demands of the project decreased.

2.3.1 Subcontractors

Subcontractor mobilization and demobilization were managed by the OHM project manager and site supervisor, and by USACE when necessary. Subcontractors were responsible for: the setup of the pugmill; spraying (for dust control) Trust 454, the BV&G parking lot, and the Rich Oil parking lot; and placing sod.



2.3.2 Permits

All necessary permits and licenses were secured prior to mobilization. The most crucial approval was issued by IEPA for the stabilization process. OHM was required to submit responses to the applicable and relevant or appropriate requirements (ARARs) for the stabilization plant. The IEPA was not required to provide a permit, but did have to authorize that OHM met the intent of the ARARs. The transporter companies and disposal facilities were USEPA-licensed operations. Prior to mobilization, all on-site employees had completed Occupational Safety and Health Administration (OSHA) 40-hour hazardous materials training.

2.4 SITE PREPARATION AND TEARDOWN

The site preparation and teardown tasks were comprised of three components. Sites were set up and/or torn down at the following locations:

- ▶ The command center at #10 Farrish Road, Madison, Illinois
- ▶ The stabilization pad at the Trust 454 site, located at 1459 State Street in Granite City, Illinois
- ▶ Each given remedial location site

2.4.1 Command Center

The command center served as the central location from which all personnel were dispatched to their respective work locations each day, or as needed. The command center was located inside a secured building and was equipped with computers, a copier, a facsimile machine, telephones, and a base radio. OHM also set up an X-ray fluorescence screening device (XRF) and support equipment in a warehouse building located in the rear of the office building. The rear of the building also served as a storage area for OHM's equipment, tools, and materials.

2.4.2 Stabilization Pad

The site preparations performed at the Trust 454 stabilization site included the inspection and repair of the previously set-up asphalt pad with a full perimeter berm. This pad was used to store hazardous and treated soil, and it served as the foundation for the stabilization equipment and rain water run-on and run-off control. The pad also served as the exclusion zone and was identified with orange snow fencing. The exclusion zone stayed in place until a small office trailer and all of the hazardous soil from the decontamination area were set up outside the exclusion zone.

2.4.3 Remedial Locations

Similar site preparations were performed at each of the remedial locations. OHM set up decontamination points for personnel and equipment, and exclusion zones were established prior



to excavation. These exclusion zones were identified with orange snow fencing. They remained in place until laboratory analysis of confirmation samples was completed and/or until backfill had been completed to a sufficient depth.

Excavation equipment used on site was decontaminated prior to demobilization. Gross contamination was scraped from the machines before they were washed. As a dust control measure, the decontamination rinsewater was collected and applied to the last loads of contaminated soil.

2.5 OPERATIONAL SCOPE OF WORK PERFORMED

The excavation activities involved the removal of contaminated soils and battery casings from the remedial sites. Restoration involved the backfilling, seeding, and sodding of sites after completing remedial activities. The scope of work for this portion of the project is illustrated in Figure 2.1.

OHM's schedule for excavation was developed to facilitate logistic management and limit the time required to transport equipment and crews from location to location. During excavation activities, engineering controls and security measures—such as surrounding the exclusion zones with fluorescent orange polyvinyl chloride (PVC) barrier fencing—were employed to prevent cross-contamination and unauthorized entry into exclusion zones.

Each of the sites had unique characteristics which mandated particular methodologies of remediation. In general, the locations were separated into two categories:

- ▶ Residential yards
- ▶ Alleys/driveways

2.5.1 Pre-construction Activities

Pre-construction activities for this portion of the project included the following:

- ▶ Conducting a pre-construction meeting with USACE
- ▶ Issuing subcontracts
- ▶ Communicating with Julie Corporation (the utilities' identification organization in Illinois) to locate potential underground utilities at the sites
- ▶ Obtaining permits
- ▶ Obtaining soil samples for waste characterization
- ▶ Videotaping residential properties for restoration purposes

Many areas, mainly in Eagle Park, had to be grubbed prior to excavation. An advance crew with appropriate equipment cleaned and prepared these locations.



FIGURE 2.1

**SCOPE OF WORK
PROVIDED TO OHM BY USACE**

The contractor shall be required to provide all plant, labor and material, and perform all work necessary to treat and stabilize lead (RCRA) contaminated soil and battery chips and other debris. It is estimated that the amount of contaminated soil is between 3,000 to 5,000 tons.

The site for processing shall be furnished to the contractor rent free, water and electricity are accessible at site. Hook up, metering and payment for utilities shall be the responsibility of successful subcontractor. The contractor shall obtain all necessary permit for his operations and material shall be processed within the time frame required by Haz waste regulation.

Samples shall be provided for bench test, which will be performed on the soil to determine what process will be necessary to stabilize the lead to meet RCRA Disposal Requirements for Special Waste.

The soil shall be delivered to the staging area and stockpiled by others. The successful contractor will perform tests, treat and stabilize the soil from the stockpile, and document tests necessary to certify shipment according to DOT and OSHA regulations. Perimeter air monitoring will be performed by the prime contractor for dust control efforts.

The subcontractor will have to cooperate with the prime contractor on off-loading and loading of stockpiles in the immediate area.

The analytical report of the soils will be furnished to the subcontractor before receipt of material.

22, October 93
Rev. 5



2.5.2 Construction Activities--Lots and Alleys

The primary construction activities for this project included the following:

- ▶ Mobilization of personnel and equipment
- ▶ Site preparation, including clearing and grubbing of support area and the setup of support zones, decontamination stations, and exclusion zones
- ▶ Site preparation and fencing of the stabilization area at the TaraCorp/Trust 454 property
- ▶ Stabilization of lead-contaminated hazardous waste
- ▶ Excavation of contaminated hazardous waste
- ▶ Visual and/or analytical determination of removal criteria fulfillment
- ▶ Backfill and compaction activities
- ▶ Landscaping activities

The excavation techniques employed at each location varied according to location accessibility, depth, and extent of material. Minimization of disturbances to adjoining properties/areas was also a key consideration in performing each excavation. OHM used tracked excavators, backhoes, Bobcats, and manual removal methods.

Dust control was a major consideration. A hydrometer and hose were available at all times to prevent fugitive emissions. A water truck was also utilized to provide additional dust control and to transport water to sites for decontamination.

Most of the residential yards needed to have sod removed at varying depths of soil. Wastes were excavated using a tracked excavator, backhoe, and/or Bobcat. At some locations, hand digging was necessary. Hazardous soil was loaded into licensed waste hauler trucks for transportation to the Trust 454 property.

Most of the alleys and driveways contained aggregate soil mixtures. Most locations were accessible with the tracked excavator, but some required smaller equipment and hand digging. The wastes removed from parking lots and alleys were segregated as hazardous or nonhazardous. Hazardous waste was classified as such if battery casings were visibly evident. Nonhazardous waste (special waste) was classified analytically. The hazardous waste was directly loaded into licensed haul trucks and sent to the stabilization operation site. Alleys were backfilled and chip sealed; some required minor landscaping at the edges of the pavement (i.e., topsoil, raking, and seeding).



2.5.3 Stabilization Activities

Stabilization, a chemical/physical process which immobilizes hazardous constituents, enabled the treated waste to meet or exceed federal and state standards prior to landfill disposal. The stabilized material met the applicable "treatment standards" (5 milligrams per liter [mg/l] for D008) specified in 40 CFR 268.41.

Stabilization Area

Due to the productivity of the pugmill, the hazardous soil had to be stored at the site until it could be processed. The soil was protected from the wind and rain by inert aqueous film-forming foam material (con-cover).

The stabilization area was also protected by a high-density polyethylene (HDPE) liner/stone/asphalt cover to prevent further soil contamination. A berm was built around the perimeter of the stabilization area to prevent run-off and run-on. The area was sloped to sumps to collect run-off. Any water build-up in the stabilization area was pumped into the holding tank for reagent mixing. The nonhazardous storage area was constructed with the same materials and slope.

Stabilization System

OHM's stabilization system consisted of a variety of feeders, conveyors, silos, and a pugmill mixer integrated into a complete system for the continuous mixing of wastes and reagents. The contaminated soil was fed to a live bottom feeder and then led by conveyor into the pugmill for blending with the stabilization additive. The stabilization additive material was introduced from the silo feeder attached to the pugmill. The treated material was then conveyed to a storage area for verification testing. A flow-through of the process is illustrated in Figure 2.2. Each pile consisted of 100 tons, and each pile was labeled for identification.

Processed waste piles remained in the stabilization area until acceptable analytical results permitted shipping. At the end of each day's activities, the waste piles were covered with a foam mixture to secure the stabilized material from the weather and to minimize dust emissions from the stabilized storage area. All piles were covered and maintained with a weather-resistant foam mixture until loadout was completed.

The treated material was stockpiled into 100-ton lots for post-treatment confirmation. Representative grab samples were taken from each stockpile, as outlined in the CDAP provided with the approved WPs. Following confirmation, treated material was then loaded out for disposal off site.

Decontamination water was used for dust control during the load-out of processed materials. There was no disposal of any decontamination liquids, due to the usage of this water for dust control measures and reagent mixing in the pugmill. Quantity summaries from the stabilization operation can be found in Section 5.0.



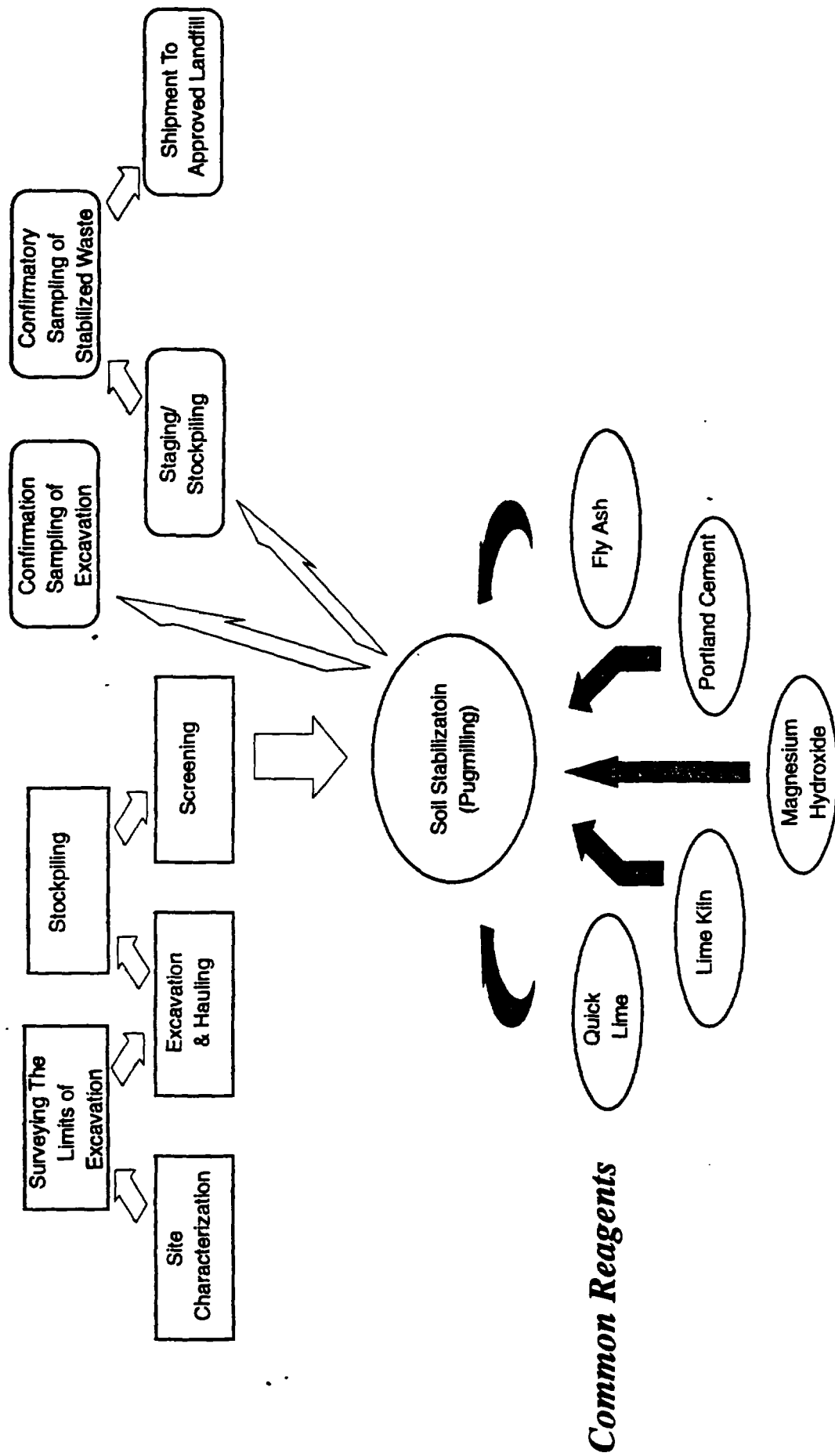


FIGURE 2.2
STABILIZATION METHODOLOGY

2.5.4 Restoration

After receiving analytical results confirming that the cleanup criteria of 500 parts per million (ppm) had been achieved, OHM restored the location to pre-remedial conditions. Excavation areas were backfilled with clean soils and restoration was completed as required by the specifications. Sodding, seeding, and revegetation were performed when necessary.

2.5.5 Waste Removal

Wastes removed from the sites were transported to one of two locations. Hazardous wastes were transported to the Trust 454 property for stabilization. This transportation was documented using manifests approved by the IEPA. Stabilized hazardous waste which was re-characterized as nonhazardous waste was transported to a nonhazardous Resource Conservation and Recovery Act (RCRA) Subtitle D landfill. OHM utilized licensed haulers and disposal firms for all wastestream shipments.

2.6 SAMPLING AND ANALYSIS

The following paragraphs detail the sampling and analysis tasks, as well as CDAP amendments/adjustments.

2.6.1 Sampling and Analysis Tasks

The sampling and analysis tasks for this project included the following:

- ▶ Street sampling
- ▶ Field screening of soil samples to confirm removal of contaminated soils
- ▶ Laboratory confirmation sampling and analysis
- ▶ Pre-characterization sampling and analysis of sites included, as delineated by USACE
- ▶ Pre-characterization sampling and analysis of additional sites
- ▶ Pugmill pile confirmation sampling
- ▶ Resampling of previously excavated property (stack emission), as directed by USACE
- ▶ Backfill sampling

Street Sampling

OHM collected random grab samples from streets, as directed by USACE, for the purpose of determining the lead content of street dust.

Field Screening of Soil Samples and Confirmation Analysis

As the excavation proceeded, OHM utilized a Spectrace 9000 XRF to assist in defining the concentrations of lead present at each remedial location. The XRF screened soil samples to facilitate the removal of all material with lead concentrations above 500 milligrams per kilogram (mg/kg).



As per the scope of services issued to OHM by USACE, materials at the residential sites exhibiting concentrations of total lead greater than 500 mg/kg were to be removed and disposed. Samples were collected from each remedial site based upon a triangular grid pattern of 25 feet. In order to incorporate a margin of error into the screening process, samples exhibiting concentrations of total lead greater than 370 mg/kg were considered contaminated at a sufficient concentration to potentially generate laboratory total lead results greater than 500 mg/kg. In other words, if a sample exhibited a lead concentration of 370 mg/kg or greater when screened with the XRF, OHM was directed by USACE to consider the sample representative of a contaminated area requiring further excavation.

At the residential sites, OHM first excavated any visually detectable contaminated material. The samples were then collected and screened with the XRF. Areas represented by samples exhibiting concentrations of lead greater than 370 mg/kg were further excavated. Samples which represented areas exhibiting concentrations of lead less than 370 mg/kg were sent to OHM Remedial Services Analytical Division Laboratories (OHMAD) for confirmation laboratory analysis. OHMAD analyzed the confirmation samples according to USEPA's *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*, SW-846, Second Edition, September 1986. The samples were prepared by SW-846, Method 3050, Acid Digestion of Sediments, Sludges, and Soils; and analyzed for total lead according to SW-846, Method 7420, within 24 hours of the time the samples were received by the laboratory. The verbal/preliminary analysis results were provided to the project command post by the laboratory.

Site Pre-characterization Sampling and Analysis

As the project progressed, the need to establish the level of effort anticipated for each upcoming site became more apparent. The need to pre-characterize each of the remedial locations for establishing reasonable estimates of hazardous waste and nonhazardous waste requiring removal was made evident via an amendment to the CDAP. The site pre-characterization sampling and analysis efforts were applied to hazardous and nonhazardous (stack emission) sites. The primary purpose of these efforts was to confirm or refute the potential contamination at each remedial location and to obtain an indication of the extent of contamination at sites with lead concentrations greater than 500 mg/kg. The most efficient and productive approaches to the pre-characterization sampling and analysis, which included the steps described in the following paragraphs, were ultimately developed for the residential lots.

Pre-characterization sampling and analysis at the residential lots involved the establishment of two sample locations at each site. The two sample points were positioned at the center of the front and back yards of each location. Prior to collecting samples at each location, the gross layer of battery chips (if present) and grass were removed. One sample was then collected at the following depths from each sample location: 0 to 3 inches, 3 to 6 inches, and 6 to 12 inches.

The laboratory analysis of the samples adhered to the following logic. The two samples representing the top 3-inch layer of each of the locations were analyzed for total lead and toxicity characteristic leaching procedure (TCLP) lead. The second set of two samples (representing the 3-inch to 6-inch depth interval of the locations) were analyzed for total lead only. The third set of



samples (representing the 6-inch to 12-inch depth interval) were put on hold pending the results of laboratory analysis of the first two sets of sample points in the case of hazardous sites and analysis of total lead in the case of the stack emission sites.

Pre-characterization of Additional Sites

Under authorization from USACE, OHM performed the pre-characterization sampling of additional sites—over and above the original scope of services. The objective of this was to determine the potential presence of lead contamination with anticipation for the planning of remediation at these sites. The technical approach for this task involved the same approaches as mentioned in the preceding paragraphs concerning pre-characterization.

2.6.2 Chemical Data Acquisition Plan Amendments/Adjustments

There were several amendments and adjustments to the CDAP as the project progressed, but they did not change the objectives of the sampling and analysis efforts. Instead, they were implemented, based upon knowledge gained, in order to more efficiently reach these objectives. The formal amendments to the CDAP included the following:

- ▶ A project-specific QAPP prepared in response to a request from USACE
- ▶ An amendment prepared for the sampling of previously excavated sites
- ▶ An amendment prepared for the sampling of incoming backfill material

Each of the items listed above are discussed in detail in the following paragraphs.

Project-specific Quality Assurance Project Plan

OHM prepared the project-specific QAPP in response to a request from USACE. The plan is entitled, *The Quality Assurance Project Plan for Remediation of Locations in Granite City, Madison, and Venice, Illinois, Associated With NL Industries/TaraCorp Superfund Site*. The plan, issued as a formal amendment to the CDAP, was prepared in draft form for submittal to USACE. The plan was reviewed and approved by USACE and formally recognized as part of the CDAP. The objective of the plan was to provide assurance of quality laboratory analysis measurements during the removal of lead-contaminated materials from the remedial sites of concern.

Development of the Sampling for Backfill Material

An amendment for the sampling and analysis of backfill material was designed to show that incoming backfill material was clean to USEPA standards. This was done as a composite sample on every 500 cubic feet of backfill and run for the following analyses:

- ▶ Volatile organic compounds (VOCs)
- ▶ Semivolatile organic compounds (SVOCs)
- ▶ Pesticides/polychlorinated biphenyls (PCBs)
- ▶ Priority pollutant metals



2.7 TRANSPORTATION AND DISPOSAL

The transportation and disposal (T&D) of wastes from the sites included the shipment of nonhazardous wastes to East St. Louis, Illinois. The hazardous wastes were transported by AWS Hauling. The transportation of wastes was performed with tractor trailer dump trucks.

2.7.1 Transportation of Waste

Each site was identified by an address written on the manifest. The site was also assigned a 5-digit manifest document number at the time of shipment. This system ensured that the truck's origin was documented.

This same system was utilized for shipments of hazardous waste to the pugmill site. The state of Illinois requires that each special waste shipment be specified on all Illinois state manifests. This allowed each shipment of hazardous and nonhazardous wastes to also be cross-referenced with the preprinted Illinois manifest document.

2.7.2 Disposal of Wastes

This project involved the removal and disposal of wastes deemed to be RCRA hazardous wastes. They were considered this because when the leachate was analyzed according to TCLP, the materials exhibited concentrations of lead greater than 5 mg/l. The hazardous wastes were sent to the Trust 454 pugmill site for stabilization and then shipped to Milam RDF landfill.

This project also involved the removal and disposal of special nonhazardous industrial waste (nonhazardous waste) that was primarily removed from residential locations. The nonhazardous waste was removed either from those areas where the hazardous wastes had already been removed or where there were no hazardous wastes present. The objective of the nonhazardous waste excavation efforts was to remove all material exhibiting concentrations of total lead above 500 mg/kg, but less than 5 mg/l, when analyzed by TCLP.

Disposal characterization of wastes was determined by analyzing composite samples, as described in Section 2.6. Materials containing gross amounts of battery chips were assumed to be hazardous wastes and were shipped and disposed accordingly. Verification of waste characterization was performed at each site through pre-characterization efforts. The characterization of certain wastes as nonhazardous was confirmed at each site with the performance of TCLP lead analysis of composite samples.

The disposal facility subcontracted to provide nonhazardous waste disposal was Milam RDF in East St. Louis, Illinois. OHM obtained the approved waste profile by providing the analytical that was previously done under the Rapid Response Contract.



3.0 TECHNICAL APPROACH

The stated objective of this project was to excavate and dispose of fill material placed in alleys, parking lots, driveways, and yards of residential communities as per the Record of Decision between USEPA, IEPA, and potentially responsible parties (PRPs) for the Superfund site.

This section describes the general approach implemented to complete work. The methods implemented to perform the work on this project fall into three categories:

- ▶ Alley locations
- ▶ Residential lots (hazardous and nonhazardous)
- ▶ Trust 454 stabilization process site

The operational effort extended was supported by the technical information gained through implementing:

- ▶ Sampling and analysis
- ▶ CDAP amendments/adjustments
- ▶ T&D

3.1 PRECONSTRUCTION ACTIVITIES

The preconstruction activities performed during this project were predominantly associated with obtaining disposal permits; obtaining transportation permits; preparing and delivering notifications of work to the public; attending public meetings; and identifying utilities at each remedial location. Many of these preconstruction activities were performed on an on-going basis as the project proceeded from one remedial location to the next.

Permits for disposal of nonhazardous wastes were obtained for each site requiring nonhazardous waste disposal prior to shipment of this type of waste (see Sections 2.6 and 2.7).

Before work progressed from one remedial location to the next, the identification of utilities was coordinated from the command center by OHM's safety supervisor. The identification of the utilities was coordinated with Julie Corporation. OHM's safety supervisor telephoned Julie Corporation and notified the organization of OHM's intention to perform work at a given site. Julie Corporation then issued a "dig number" to OHM and notified all utility companies listed to provide service for the area of concern. Typically, the utility companies marked utilities on the site within 48 hours of OHM's initial contact with Julie Corporation.

Required transportation permits were obtained by OHM subcontractors who performed the transportation of wastes and equipment in Madison, Venice, and Granite City, Illinois.



3.2 SAMPLING AND ANALYSIS

The sampling and analysis tasks involved the following items:

- ▶ Field screening of soil samples to confirm removal of contaminated soils
- ▶ Laboratory confirmation sampling and analysis
- ▶ Stabilized soil sampling and analysis verification
- ▶ Pre-characterization sampling and analysis
- ▶ Backfill sampling

An XRF was used to assist in defining the concentrations of lead present at each remedial location. It screened soil samples to facilitate the removal of all material with lead concentrations above 500 mg/kg.

As per the direction of USACE, materials at the residential sites and alleys exhibiting concentrations of total lead greater than 500 mg/kg were removed and disposed. Samples were collected from each remedial site based upon a square grid pattern of 25 feet. In order to incorporate a margin of error into the screening process, samples exhibiting concentrations of total lead greater than 370 mg/kg were considered contaminated at a sufficient concentration to potentially generate laboratory total lead results greater than 500 mg/kg. In other words, if a sample exhibited a lead concentration of 370 mg/kg or greater when screened with the XRF, OHM was directed by USACE to consider the sample representative of a contaminated area requiring further excavation.

3.2.1 Laboratory Confirmation Sampling and Analysis

At the residential sites and alleys, OHM first excavated materials visibly evident to be contaminated with battery casings. The screening samples exhibiting concentrations of lead greater than 370 mg/kg were sent to OHMAD for confirmation laboratory analysis. OHMAD analyzed the confirmation sample according to USEPA's *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*, SW-846, Second Edition, September 1986. The samples were prepared by SW-846, Method 3050, Acid Digestion of Sediments, Sludges, and Soils; and analyzed for total lead according SW-846, Method 7420, within 48 hours of the time the samples were received by the laboratory. The verbal/preliminary analysis results were provided to the command post by the laboratory.

3.2.2 Stabilized Soil Verification

As hazardous soil from each remote location was treated and stockpiled on the stabilization pad, it was necessary to verify that the lead in the soil was stabilized to meet RCRA Disposal Requirements for Special Waste.

To accomplish this, a 1-quart grab sample was taken from each 100 cubic yards of soil processed. The samples from each pile were documented and logged, and the location of each pile on the pad was mapped so each sample could be tracked back to the pile it came from.



OHM utilized OHMAD, an MRD-approved laboratory, to perform the TCLP analysis. A 2-day turnaround time was required for all samples. The test methods used on the treated soil were USEPA TCLP Method 1311, sample preparation Method 3010, and analytical Method 7420 (AA lead). No soil was loaded out from the disposal process until analytical results from the OHM quality control (QC) officer verified stabilization.

3.2.3 Pre-Characterization Sampling and Analysis

As the project progressed, the need to establish the level of effort anticipated for each upcoming site became much more apparent. The need to pre-characterize each of the remedial locations for establishing reasonable estimates of hazardous wastes and nonhazardous wastes requiring removal was made evident through incorporation into the CDAP. The site pre-characterization sampling and analysis efforts were applied to hazardous, as well as nonhazardous, (stack emission) sites. The primary purpose of site pre-characterization sampling was to confirm or refute the potential presence of hazardous or nonhazardous waste meeting the action criteria. The most effective and productive approaches to the pre-characterization sampling and analysis were ultimately developed for the residential lots.

3.2.4 Technical Approach to Stack Emission Lots

The technical approach to the stack emission lots differed from the residential battery casing cleanups in the respect that no confirmation sampling was necessary. The reason for this was that previous sampling results yielded a pre-determined depth per USEPA. Consequently, yards were excavated to this pre-determined depth. In addition, all waste was shipped out as special-direct to a landfill.

3.3 CHEMICAL DATA ACQUISITION PLAN AMENDMENTS/ADJUSTMENTS

As previously noted, there were several amendments and adjustments to the CDAP as the project progressed. The amendments and adjustments, while not changing the objectives of sampling and analysis efforts, were implemented to more efficiently reach the objectives of the CDAP. The formal amendments to the CDAP included the following:

- ▶ A project-specific QAPP was prepared in response to a request from USACE
- ▶ An amendment was prepared for the sampling of previously excavated sites
- ▶ An amendment was prepared for the sampling of incoming backfill material

3.3.1 Project-Specific Quality Assurance Project Plan

OHM prepared the project-specific QAPP in response to a request from USACE. The plan is entitled *The Quality Assurance Project Plan for Remediation of Locations in Granite City, Madison, and Venice, Illinois, Associated with NL Industries/TaraCorp Superfund Site*. The plan was issued as a formal amendment to the CDAP and was prepared in draft form for submittal to USACE. The plan was reviewed and approved by USACE and formally recognized as a CDAP amendment. The objective of the plan was to provide assurance of quality laboratory analysis measurements during execution of the plan.



3.3.2 Development of the Sampling for Previously Excavated Sites

This sampling and analysis was designed to establish that the excavation of property located at 1443 Grand was analytically successful. The sampling was performed under the direction of USACE, which delineated the grid and sampling locations/depths. The amendment was written and the sampling performed according to the following guidelines:

- ▶ Five points were taken—one at the center of the front yard; and four (one in each direction) located five feet off of the center point.
- ▶ The samples were taken at the following depths: 0 to 3 inches, 3 to 6 inches, and 6 to 12 inches. The samples were then composited according to depth so that one sample remained for each of the three depth ranges.

3.3.3 Development of the Sampling for Backfill Material

An amendment for the sampling and analysis of backfill material was designed to show that incoming backfill material was clean to USEPA standards. This was done as composite samples on every 500 cubic feet of backfill and run for the following analysis:

- ▶ VOCs
- ▶ SVOCs
- ▶ Pesticides/PCBs
- ▶ Priority pollutant metals

3.4 TRANSPORTATION AND DISPOSAL

The T&D of wastes removed from the sites included the shipment of nonhazardous wastes by AWS Hauling to East St. Louis, Illinois. The hazardous wastes were also transported by AWS Hauling. The transportation of wastes was performed with tractor trailer dump trucks.

3.4.1 Transportation of Waste

Each site was identified by an address written on the manifest. The site was also assigned a 5-digit manifest document number at the time of shipment. This system ensured that the truck's origin was documented.

The same system was utilized for shipments of hazardous waste to the pugmill site. The state of Illinois requires that each special waste shipment be specified on all Illinois state manifests. This allowed each shipment of hazardous and nonhazardous wastes to also be cross-referenced with the preprinted Illinois manifest document.

3.4.2 Disposal of Wastes

This project involved the removal and disposal of wastes deemed to be RCRA hazardous wastes. They were considered this because the materials exhibited concentrations of lead greater



than 5 mg/l when the leachate was analyzed according to TCLP. The hazardous wastes were sent to the Trust 454 pugmill site for stabilization and then shipped to Milam RDF landfill.

This project also involved the removal and disposal of special nonhazardous industrial waste (nonhazardous waste) that was primarily removed from residential locations. The nonhazardous waste was removed either from those areas where the hazardous wastes had already been removed or where there were no hazardous wastes present. The objective of the nonhazardous waste excavation efforts was to remove all material exhibiting concentrations of total lead above 500 mg/kg, but less than 5 mg/l, when analyzed by TCLP.

Disposal characterization of wastes was determined by analyzing composite samples, as described in Section 2.6. Materials containing gross amounts of battery casings were assumed to be hazardous wastes and were shipped and disposed accordingly. Verification of waste characterization was performed at each site through pre-characterization efforts. The characterization of certain wastes as nonhazardous was confirmed at each site with the performance of TCLP lead analysis of composite samples.

The disposal facility subcontracted to provide nonhazardous waste disposal was Milam RDF in East St. Louis, Illinois. OHM obtained the approved waste profile by providing the analytical that was previously done under Rapid Response Contract.



4.0 HEALTH AND SAFETY SUMMARY

4.1 PROJECT SUMMARY AND CONCLUSIONS

4.1.1 Summary

The following summarizes the health and safety aspects of this project:

- ▶ One amendment was made to the LSSHP to address changes made to the level of personal protection required (refer to Figure 4.1 for a copy of this amendment).
- ▶ Task-specific hazard evaluations were performed each day at each work site prior to the start of work.
- ▶ Air monitoring data was used during this project to verify that appropriate personal protection was being used for site conditions. Personnel medical monitoring was performed prior to and at the end of the project to determine lead levels in the blood.
- ▶ Four of 1650 perimeter samples indicated total lead concentrations above the action limit established in the LSSHP. Although results obtained are "after the fact," no personnel or citizens were at risk of exposure at any time (see Figure 4.2).
- ▶ Ten of 1099 personnel air sampling data indicated detectable readings for total lead. Only two of those exceeded the action level of 5.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), set by USACE. There were no recorded cases of personnel overexposure to ambient lead levels (see Figure 4.2).

4.1.2 Conclusions

Following completion of the project, the OHM Health and Safety Department made the following conclusions:

- ▶ The LSSHP was effectively implemented to address the health and safety hazards associated with each phase of site operations and to meet the requirements set forth in 29 CFR 1910.120.
- ▶ The existing LSSHP is appropriate for future phases of work at this site involving the same work activities.



FIGURE 4.1
LSSHHP AMENDMENT

To: Chuck Malin

From: Mark Proctor

Date: May 20, 1993

Subject: Amendment to Safety and Health Plan Rapid Response Lead Contamination Remediation

As we discussed today with Jim Woolcott, we propose to amend the Safety and Health Plan to downgrade the level of protection specified in section 6.3, Task-Specific Protection Level. Specifically, it is proposed to eliminate the requirement for respiratory protection and use Modified Level D during excavation and load out activities involving contaminated soil.

Air sampling has been performed at each project site to monitor both personnel exposures and concentrations of airborne lead at the perimeter of the exclusion area. No airborne lead has been detected in any of the samples collected to date; all samples have been less than 2 micrograms of lead per cubic meter of air.

The OSHA standard for occupational exposures to airborne lead requires that personnel exposures be maintained below 50 micrograms/cubic meter based on an eight hour, time weighted average. The Corps of Engineers has established an action level of 15 micrograms of lead per cubic meter. It is proposed to don air purifying respirators in the event that any breathing zone sample exceeds 15 micrograms of lead/cubic meter. Air samples will be collected to document the actual conditions at the job sites.

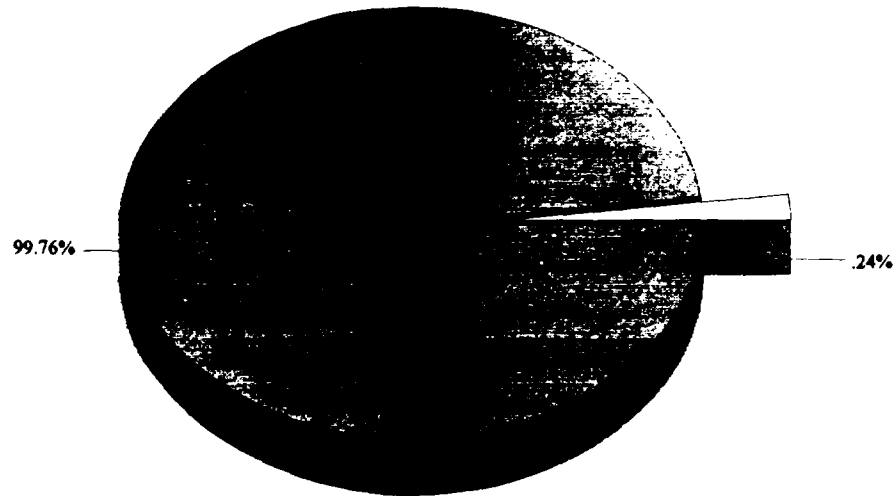
This change will be implemented effective May 21, 1993. The work at the Missouri Avenue site will not be changed. Level C will be used during the remainder of the excavation and load out at the Missouri Avenue site.

pc: Jeff Habegger
Bill Thomas



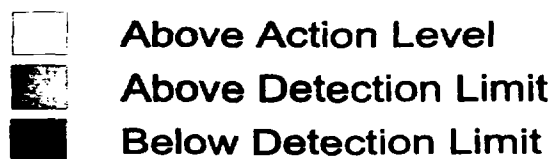
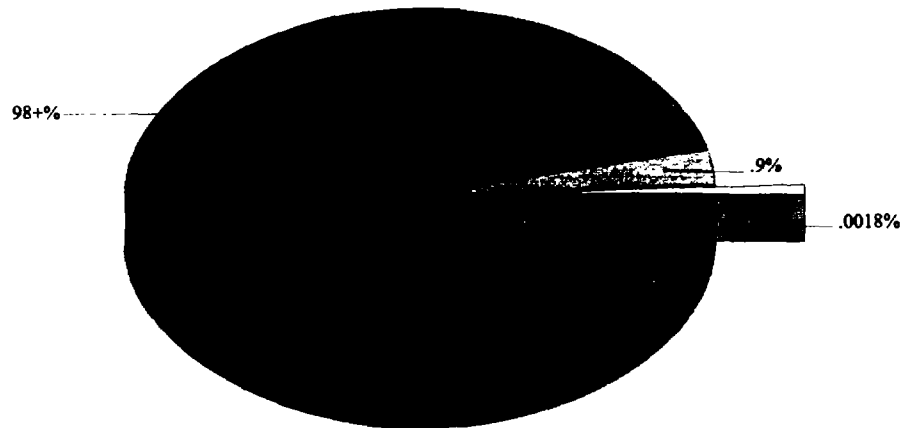
FIGURE 4.2
SAMPLING DATA CHARTS

PERIMETER



Note: 0% was above action level

PERSONNEL



- ▶ Future work should be performed in Level D PPE with appropriate air monitoring to verify the selection of PPE. An action level of $30 \mu\text{g}/\text{m}^3$ should be used to warrant controls. Once monitoring shows consistent readings below the action level, the amount and frequency of air monitoring may be appropriately limited/reduced.
- ▶ Special attention should be paid to prevent any recordable accidents and near misses during the course of future work. Routine tasks should be reviewed and evaluated for potential hazards. Daily safety meetings should be implemented to prevent injuries on site.

4.2 SITE SAFETY AND HEALTH PLAN EVALUATION

A LSSHP was issued before the start of this project to address the health and safety hazards associated with each phase of site operations. The plan met the requirements of 29 CFR 1910.120. The phases of work addressed in the LSSHP include the following:

- ▶ Mobilization
- ▶ Installation of perimeter fence
- ▶ Bagging and stockpiling nonhazardous material
- ▶ Soil sampling
- ▶ Excavation of contaminated soil
- ▶ Load-out of contaminated soil
- ▶ Backfill of excavation
- ▶ Restoration of disturbed areas
- ▶ Decontamination and demobilization

4.2.1 Provisions

Once on site, waste materials were designated to be directly loaded into dump trucks instead of being bagged.

Provisions were made to address heavy equipment, excavation, and other physical hazards. Hazards associated with vehicle and pedestrian traffic in work areas near roadways were controlled by the use of warning signs, "Men at Work" signs, and road guards to direct traffic.

4.2.2 Personal Protective Equipment

PPE provisions were made to minimize exposure to lead contamination for personnel on site. The minimum of Level C PPE, required at the start of work on this project, included the following:

- ▶ Full-face air purifying respirators with GMC-H cartridges
- ▶ Hard hat
- ▶ Polycoated Tyvek coveralls
- ▶ Steel-toed boots
- ▶ Nylon booties (inner)
- ▶ Robar/Tingley boots (outer)



- ▶ Vinyl sample gloves (inner)
- ▶ Cloth, leather, or PVC gloves (outer)

An amendment was made to the LSSHP for downgrading the level of PPE from Level C to Level D for personnel working in the exclusion zone. This amendment was issued based on air monitoring data analysis showing non-detectable levels or levels of ambient lead contamination consistently below the action level for samples taken in the excavation areas. The amendment was issued by the site safety officer, under the direction of the regional health and safety manager—who is certified by the American Board of Industrial Hygiene. The amendment was approved on June 2, 1993, by USACE Representative Chuck Malin (refer to Figure 4.1 for a copy of the amendment).

The downgrade of PPE made provisions for personnel to wear the following Level D PPE during site activities:

- ▶ Hard hat
- ▶ Safety glasses
- ▶ Steel-toed leather safety shoes/boots
- ▶ Polycoated Tyvek coveralls
- ▶ Nylon booties (under) and Robar/Tingley boots (outer)
- ▶ Inner sample gloves; outer cloth or leather gloves

An action level of $15.0 \mu\text{g}/\text{m}^3$ of airborne lead, as determined by integrated sampling, was set by USACE to upgrade the level of PPE to Level C (including use of an air purifying respirator). Air monitoring was performed for the duration of remedial activities to ensure proper PPE use.

4.3 SITE SAFETY

4.3.1 Accidents

Employee safety was OHM's first priority. After performing more than 120,000 man hours on this project, OHM personnel suffered no OSHA-recordable accidents or injuries.

4.3.2 Preventative Measures

A number of measures were taken on site to prevent accidents and injuries. Daily safety meetings were held to discuss: hazards associated with upcoming work tasks; the use of specific tools and equipment; and other chemical, physical, and environmental hazards associated with site work. Task-specific hazard evaluations were performed each day at the work sites prior to the start of work.

Controls were used to eliminate the hazards associated with vehicle and pedestrian traffic near the work locations. Warning signs were posted and guards were used to direct traffic.

A heat stress prevention program was also instituted on site. Personnel heat stress monitoring was performed to prevent heat related illnesses during work in high ambient temperatures. Site



workers' pulses, body temperatures, and blood pressures were taken before and after each break. Work-rest schedules were determined by the results of this monitoring in accordance with the LSSHP heat stress monitoring criteria.

Specific work/rest regimens were established at the start of every work day based on the specific work conditions for that day (temperature, time of day, amount of sun or shade, etc.). Breaks were taken in shady areas as designated throughout the work shift. Personnel removed PPE and were given cool liquids to drink (e.g., juice, water). Visual observation by a designated safety official was used to identify individuals exhibiting symptoms of heat related illness and to take the necessary actions.

4.4 EXPOSURE MONITORING

Since on-site activities for this project involved excavation of lead-contaminated soil and battery casings, the potential for exposure to these contaminants existed through dust migration in the air and personnel and equipment tracking.

Methodology

Air monitoring was performed to determine the ambient levels of total suspended particulates generated during excavation and to determine total ambient lead exposure for site personnel and perimeter emissions. At the start of each work day, wind direction was used to determine the placement of sampling instruments on site.

Personnel and perimeter samples were taken to determine the levels of total lead in the air of the personal breathing zone and at the site perimeter. Lead samples were collected and analyzed using NIOSH Method 730 and battery-operated air sampling pumps (Gillian or equivalent) fitted with 37-millimeter (mm) mixed cellulose ester (MCE) filters (0.8-micron pore diameter).

Perimeter Sampling

Three perimeter samples were taken daily over the course of the work shift. One sample was taken upwind of site operations and two were taken downwind. Perimeter samples were taken above ground level (approximately 4 to 5 feet in height) to characterize the breathing zone and to prevent contamination due to foot traffic. The pump flowrate was calibrated and set at approximately 20 liters per minute for the duration of the task (about 8 hours).

Pumps were calibrated using a secondary standard, a rotameter, to determine the sample flowrate. Calibration readings and sample results were documented and are available from OHM.

Samples were assigned identification numbers based on an established code. The analytical laboratory used was UEC Lab, 4000 Tech Center Drive, Monroeville, Pennsylvania. Standard turnaround time for sample results was 24 to 48 hours by facsimile; original data was then returned by mail.



Personnel Sampling

Personnel air samples for lead were taken for a representative number of employees performing intrusive activities within the exclusion zone (one employee from each job category; at least two employees per day per site). The samples were taken in the person's breathing zone for the duration of the day's shift. Samples were collected at the end of the work day and sent to the analytical laboratory for analysis of total lead. A blank sample was included in shipment.

Medical Monitoring

Personnel blood lead levels were determined prior to and after the completion of work for this project. Monitoring was performed in accordance with the requirements of 29 CFR 1910.1025 for personnel working in contaminated areas.



5.0 QUANTITY SUMMARY TABLE

Quantities of material were tracked for each lot or site remediated. Table 5.1 presents a summary of these totals.



TABLE 5.1
QUALITY SUMMARIES

Site	Hazardous	Special	Stabilized	Concrete	Sod	Seed	ca-6	ca-7	Sand	Topsoil	Backfill	3" Stone	Rock
Address	cu yd	cu yd	ton	sq yd	sq yd	sq yd	ton	ton	cu yd	cu yd	loads	ton	ton
109 Allen	381.51	35.75	0	0	0	1	30.75	0	26.5	0	11	0	0
111/13 Allen	466.29	62.22	0	0	0	1	3.95	0	0	70.75	21	0	0
200 Allen	347.8	0	0	0	0	1	73.5	14.85	0	83.29	22	0	0
203 Allen	748.89	2.64	0	0	0	1	47.5	42.3	0	172.61	40	0	0
209 Allen	720.63	38.42	0	0	0	1	82.65	28	0	193.95	52	0	0
211/13 Allen	1554.3	29.9	0	0	0	1	14.1	55.9	0	191.85	6	0	0
310 Allen	423.9	6.46	0	0	0	1	0	42.85	0	0	32	0	0
Alley 2	1695.6	35.57	0	0	0	0	84.91	829.6	0	0	0	0	0
Alley 7	664.11	0.29	0	0	0	0	634.5	161.1	100.56	0	0	0	0
Alley 14	777.15	0	0	0	0	0	830.3	172.8	0	0	0	0	0
Alley 18	791.28	8.36	0	0	0	0	410.2	146.5	0	0	0	0	0
Alley 22	763.02	32.21	0	0	0	0	485.7	220.3	0	0	0	0	0
Alley 25	1243.44	27.26	0	0	0	0	832.3	283.6	0	0	0	0	0
Alley 30	3574.89	4.67	0	0	0	0	1430	359.8	0	0	0	0	0
Alley 30.5	197.82	0	0	0	0	1	0	0	0	59.61	6	0	0
Alley 36	211.95	0.58	0	0	0	0	160.5	46.95	14.07	0	0	0	0
Alley 39	494.55	18.76	0	0	0	0	292.3	98.03	0	0	0	0	0
Alley 54	339.12	95.06	0	0	0	0	389.3	240.1	0	0	0	0	0
Alley 55	438.03	15.05	0	0	0	0	176	179.6	0	0	0	0	0
Alley 57	438.03	29.57	0	0	0	0	310.1	73.15	0	0	0	0	0
Alley 66	494.55	23.7	0	0	0	0	235.2	351.1	0	0	0	0	0
Alley 69	593.46	0	0	0	0	0	343.4	138.5	0	0	0	0	0
Alley 70	678.24	1.16	0	0	0	0	368.8	94.45	0	0	0	0	0
HNT Alley	678.24	0.79	0	0	0	0	499.8	125.9	0	0	0	0	0
HIT Alley	819.54	0	0	0	0	0	580.6	122.5	0	0	0	0	0
108B Carver	1229.31	24.38	0	0	0	1	0	14.45	0	240.96	79	0	0
114 Carver	353.25	5.51	0	0	0	1	62.55	58.65	0	0	15	0	0
225/27 Carver	1059.75	32.75	0	0	0	1	148	61.2	0	95	121	0	0
208 Hare	819.54	24.51	0	0	0	1	97.45	41.2	0	348.66	26	0	0
209 Hare	932.58	17.74	0	0	0	1	0	78	0	0	0	0	0
100Hill	593.46	14.3	0	0	0	1	0	0	0	681.25	0	0	0
205 Hill	1822.77	11.62	0	0	0	1	189.8	100.7	0	339.22	95	0	0
100 Harrison	593.46	142.21	0	0	0	1	118.2	43.45	0	0	22	0	0
200 Harrison	2486.88	73.36	0	0	0	1	27.95	0	30	0	181	0	0

TABLE 5.1 (CONT'D.)
QUARTERLY SUMMARIES

211 Harrison	551.07	0	0	0	0	0	1	72.3	45.5	0	182	37	0	0
218 Harrison	819.54	36.14	0	0	0	0	1	112.6	42.85	0	390	11	0	0
104 Roosevelt	395.64	2.82	0	0	0	0	1	29.3	55.9	0	112.68	3	0	0
108 Roosevelt	579.33	97.1	0	0	0	0	1	103.4	13.65	0	0	18	0	0
Sand 1	3885.75	1.22	0	0	0	0	0	0	0	0	84	0	0	0
Sand 2	3080.34	81.8	0	0	0	0	0	95.45	0	0	5	0	0	0
Schaeffer Road	1766.25	9.09	0	0	0	0	0	0	0	0	89	0	0	0
204 Terry	1285.83	130.36	0	0	0	0	1	56.3	56.1	0	438.21	92	0	0
204B Terry	847.8	2.16	0	0	0	0	1	0	188.3	0	175.01	2	0	270.43
206 Terry	1439.13	88.09	0	0	0	0	1	15.75	0	0	749.05	57	0	0
311 Terry	876.06	3.98	0	0	0	0	1	14.75	29	0	72.63	0	0	0
1624/26 Cleveland	0	56.52	0	0	0	1	0	0	0	0	15.93	4	0	0
1628 Cleveland	0	56	0	0	0	1	0	0	0	0	0	2	0	0
1630/32/34 Cleveland	0	173.7	0	0	0	1	0	0	0	0	47.79	25	0	0
1708 Cleveland	0	295.15	0	0	0	1	0	27.7	30.15	0	191.12	10	0	0
1726 Cleveland	0	70.65	0	0	0	1	0	28.7	0	0	0	6	0	0
1728 Cleveland	0	84.78	0	0	0	1	0	28.26	0	0	0	8	0	0
1919 Cleveland	0	131.15	0	0	0	1	0	0	0	0	0	14	0	0
1716 Chestnut	0	77.22	0	0	0	1	0	0	0	0	74.3	2	0	0
1732/34 Chestnut	0	132.07	0	0	0	1	0	61.75	0	0	0	5	0	0
1739 Chestnut	0	100.34	0	0	0	1	0	15.35	0	0	86.19	2	0	0
1751 Chestnut	0	269.03	0	0	0	1	0	30.8	0	0	122.75	14	0	0
1754 Chestnut	0	252.34	0	0	0	1	0	29.95	28.6	0	101.58	12	0	0
1619 Delmar	0	56.52	0	0	0	1	0	0	0	0	0	7	0	0
1624 Delmar	0	84.78	0	0	0	1	0	12	0	0	36	11	0	0
1625 Delmar	0	169.82	0	0	0	1	0	120.4	0	0	47.92	2	0	0
1627/29 Delmar	0	94.52	0	0	0	1	0	67.55	0	0	109.67	0	0	0
1636 Delmar	0	101.87	0	0	0	1	0	0	0	0	0	4	0	2.35
1638 Delmar	0	119.34	0	0	0	1	0	0	0	0	0	13	0	2.05
1641 Delmar	0	84.78	0	0	0	1	0	36	0	0	0	12	0	0
1644 Delmar	0	68.55	0	0	0	1	0	0	15.4	0	59.41	0	0	0
1700 Delmar	0	195.74	0	0	0	1	0	29.45	0	0	74.83	9	0	0
1703 Delmar	0	208.76	0	0	0	1	0	57.39	12.9	0	159.41	0	0	0
1704/08 Delmar	0	318.64	0	0	0	1	0	15	15.15	6	366.06	4	0	0
1717 Delmar	0	177.34	0	0	0	1	0	0	0	0	87.71	1	0	0
1718 Delmar	0	199.77	0	0	0	1	0	123.4	0	0	17.92	8	0	0
1723 Delmar	0	200.64	0	0	0	1	0	29.35	15.45	0	89.89	10	0	0

TABLE 5.1 (CONT'D.)
QUALITY SUMMARIES

1725 Delmar	0	153.82	0	0	0	1	0	59.35	15.4	0	35.23	8	0	0
1728 Delmar	0	125.56	0	0	0	1	0	0	0	0	101.95	43.8	0	0
1627/29 Edison	0	56.52	0	0	0	1	0	0	0	0	0	10	0	0
1635/37 Edison	0	569.78	0	0	0	1	0	15.6	16.21	0	373.48	39	0	0
1638/40 Edison	0	188.19	0	0	0	1	0	15.4	0	0	184.86	0	0	0
1639/41 Edison	0	104.22	0	0	0	1	0	13	13.22	0	122.61	0	0	0
1642 Edison	0	143.67	0	0	0	1	0	0	0	0	206.84	0	0	0
1701 Edison	0	124.76	0	0	0	1	0	60.25	0	0	48.81	9	0	0
1704/06 Edison	0	155.46	0	0	0	1	0	28.6	28.55	0	59.67	0	0	0
1707 Edison	0	95.46	0	0	0	1	0	29.2	40.8	0	41.75	0	0	0
1708 Edison	0	236.2	0	0	0	1	0	89.05	41.45	0	0	4	0	0
1709/11 Edison	0	109.05	0	0	0	1	0	15.15	0	0	104	0	0	0
1712/14 Edison	0	137.05	0	0	0	1	0	156.3	27.75	0	0	2	0	0
1715 Edison	0	101.48	0	0	0	1	0	50.05	0	0	115.14	11	0	0
1717/19 Edison	0	183.98	0	0	0	1	0	0	0	0	71.03	8	0	0
1718 Edison	0	102.73	0	0	0	1	0	84.85	23.3	0	63.84	2	0	0
1726 Edison	0	154.34	0	0	0	1	0	59.7	0	0	62	10	0	0
1728 Edison	0	209.74	0	0	0	1	0	43.5	15.3	0	72.08	0	0	0
1729 Edison	0	152.66	0	0	0	1	0	0	14.5	0	64.68	5	0	0
1733/35 Edison	0	193.09	0	0	0	1	0	14.82	15.85	0	60.57	10	0	0
1734 Edison	0	244.92	0	0	0	1	0	86.95	43.8	0	92.67	10	0	0
807 Grand	0	50.44	0	0	0	1	0	0	0	0	39.13	0	0	0
901 Grand	0	135.25	0	0	0	1	0	41.68	0	0	88.56	9	0	0
1327 Grand	0	134.88	0	0	0	1	0	43.75	59.4	0	13.88	2	0	0
1401/03/05 Grand	0	276.04	0	0	0	1	0	36	0	0	244.79	0	0	0
1412 Grand	0	60.71	0	0	0	1	0	0	0	0	16.18	3	0	0
1415 Grand	0	97.82	0	0	0	1	0	15.05	0	0	84.65	5	0	0
1418 Grand	0	186.52	0	0	0	1	0	59.95	29.95	0	15.93	11	0	0
1419/21 Grand	0	108.56	0	0	0	1	0	14.35	0	0	0	7	0	0
1420/22 Grand	0	176.57	0	0	0	1	0	57.4	0	0	0	8	0	0
1423 Grand	0	182.25	0	0	0	1	0	43.9	0	0	32.55	8	0	0
1424 Grand	0	243.91	0	0	0	1	0	0	0	0	152.81	5	0	0
1429 Grand	0	37.42	0	0	0	1	0	0	0	0	0	2	0	0
1431 Grand	0	125.16	0	0	0	1	0	0	0	0	34.5	5	0	0
1436 Grand	0	339.48	0	0	0	1	0	129.2	0	0	49.72	8	0	0
1026 Greenwood	0	32.2	0	0	0	1	0	0	0	0	45.53	0	0	0
1229 Iowa	0	114.27	0	0	0	1	0	14.5	29.1	0	143.47	0	0	0

**TAB F 5.1 (CONT'D.)
QUANTITIES SUMMARIES**

1411 Madison	0	181.24	0	0	0	1	0	63.3	28.36	0	66.1	6	0	0
1413 Madison	0	76.46	0	0	0	1	0	73.45	0	0	0	11	0	0
1415 Madison	0	119.88	0	0	0	1	0	21.53	0	0	47.86	0	0	0
1419 Madison	0	149.59	0	0	0	1	0	4.46	0	0	80.62	9	0	0
1425 Madison	0	57.61	0	0	0	1	0	14.35	0	0	0	0	0	0
1641 Maple	0	76.72	0	0	0	1	0	43.55	0	0	71.2	0	0	0
1642 Maple	0	214.93	0	0	0	1	0	47.8	0	0	163.25	2	0	0
834 Niedringhaus	0	58.36	0	0	0	1	0	0	0	0	65.03	0	0	0
938 Niedringhaus	0	101.18	0	0	0	1	0	0	0	0	108.46	0	0	0
945 Niedringhaus	0	602.93	0	0	0	0	1	30.2	0	0	464.01	37	0	0
1721 Olive	0	71.83	0	0	0	1	0	0	0	0	47.15	3	0	0
1724A Olive	0	16.28	0	0	0	0	0	0	0	0	0	0	0	0
1729 Olive	0	43.67	0	0	0	1	0	16.25	0	0	60	0	0	0
1747 Olive	0	74.28	0	0	0	1	0	14.6	14.6	0	44.08	0	0	0
1751 Olive	0	126.88	0	0	0	1	0	15.3	15.3	0	179	0	0	0
1406 State	0	187.87	0	0	0	1	0	48.6	0	0	0	10	0	0
1705/07 State	0	160.36	0	0	0	1	0	32.55	14.35	0	136.37	0	0	0
1711 Walnut	0	234.45	0	0	0	1	0	47.65	0	0	13.89	18	0	0
1713 Walnut	0	135.51	0	0	0	1	0	73.75	15.35	0	49.55	4	0	0
1717 Walnut	0	33.16	0	0	0	1	0	0	0	0	133.6	0	0	0
1721 Walnut	0	86.8	0	0	0	1	0	48.45	0	0	48.2	0	0	0
1725 Walnut	0	130.38	0	0	0	1	0	44.8	46.5	8.75	203.51	1	0	0
1727 Walnut	0	188.6	0	0	0	1	0	59.35	30.25	0	156.88	0	0	0
1741 Walnut	0	193.03	0	0	0	1	0	28.7	46.7	0	131.09	0	0	0
1751 Walnut	0	101.66	0	0	0	1	0	44.4	0	0	86.73	0	0	0
1412 State	28.26	0	0	0	0	0	0	59.1	0	0	0	0	0	0
Pugmill	0	0	35712	0	0	0	0	0	0	0	0	0	0	0
Totals:	44982.34	14315.4	35712	0	0	85	26	12282.9	5400.47	185.88	11470.85	1479.8	0	274.83

6.0 VERIFICATION ANALYTICAL SUMMARY TABLE

6.1 STACK EMISSION SITES

Stack emission sites were not sampled for verification. This was due to the fact that a predetermined depth for excavation was given to OHM by USACE for each stack emission site.

6.2 VERIFICATION RESULTS FOR PUGMILL SAMPLING

The verification results for pugmill sampling are included in Table 6.1.



TABLE 6.1

Verification Results for Pugmill Sampling

Sample #	Pile #	TCLP
P1000	1	<.100
P1001	2	0.145
P1002	3	<.100
P1003	4	0.114
P1004	5	0.33
P1005	6	<.100
P1006	7	0.132
P1007	8	<.100
P1008	9	<.100
P1009	10	<.100
P1010	11	0.11
P1011	12	<.100
P1012	13	0.117
P1013	14	0.109
P1014	15	<.100
P1015	16	0.189
P1016	17	0.151
P1017	18	0.318
P1018	19	<.100
P1019	20	<.100
P1020	21	<.100
P1021	22	<.100
P1022	23	<.100
P1023	24	<.100
P1024	25	<.100
P1025	26	<.100
P1026	27	<.100
P1027	28	<.100
P1028	29	<.100
P1029	30	<.100
P1030	31	<.100
P1031	32	<.100
P1032	33	<.100
P1033	34	<.100
P1034	35	<.100
P1035	36	<.100
P1036	37	<.100
P1037	38	<.100
P1038	39	<.100
P1039	40	<.100
P1040	41	<.100
P1041	42	<.100
P1042	43	0.587
P1043	44	<.100
P1044	45	<.100
P1045	46	<.100

TABLE 6.1 (CONT'D.)

VERIFICATION RESULTS FOR PUGMILL SAMPLING

P1046	47	<.100
P1047	48	<.100
P1048	49	<.100
P1049	50	<.100
P1050	51	<.100
P1051	52	<.100
P1052	53	<.100
P1053	54	<.100
P1054	55	<.100
P1055	56	<.100
P1056	57	<.100
P1057	58	0.137
P1058	59	<.100
P1059	60	<.100
P1060	61	<.100
P1061	62	<.100
P1062	63	<.100
P1063	64	<.100
P1064	65	<.100
P1065	66	<.100
P1066	67	<.100
P1067	68	<.100
P1068	69	<.100
P1069	70	<.100
P1070	71	<.100
P1071	72	<.100
P1072	73	<.100
P1073	74	<.100
P1074	75	<.100
P1075	76	<.100
P1076	77	<.100
P1077	78	<.100
P1078	79	<.100
P1079	80	<.100
P1080	81	<.100
P1081	82	<.100
P1082	83	<.100
P1083	84	<.100
P1084	85	<.100
P1085	86	<.100
P1086	87	<.100
P1087	88	<.100
P1088	89	0.207
P1089	90	<.100
P1090	91	0.181
P1091	92	<.100
P1092	93	<.100
P1093	94	<.100
P1094	95	<.100
P1095	96	<.100
P1096	97	<.100

TABLE 6.1 (CONT'D.)

VERIFICATION RESULTS FOR PUGMILL SAMPLING

P1097	98	<.100
P1098	99	<.100
P1099	100	<.100
P1100	101	<.100
P1101	102	<.100
P1102	103	<.100
P1103	104	0.132
P1104	105	0.476
P1105	106	<.100
P1106	107	<.100
P1107	108	<.100
P1108	109	<.100
P1109	110	<.100
P1110	111	<.100
P1111	112	<.100
P1112	113	<.100
P1113	114	<.100
P1114	115	0.657
P1115	116	<.100
P1116	117	<.100
P1117	118	<.100
P1118	119	<.100
P1119	120	<.100
P1120	121	<.100
P1121	122	<.100
P1122	123	<.100
P1123	124	<.100
P1124	125	<.100
P1125	126	<.100
P1126	127	<.100
P1127	128	<.100
P1128	129	<.100
P1129	130	<.100
P1130	131	<.100
P1131	132	<.100
P1132	133	<.100
P1133	134	<.100
P1134	135	<.100
P1135	136	<.100
P1136	137	<.100
P1137	138	<.100
P1138	139	<.100
P1139	140	<.100
P1140	141	<.100
P1141	142	<.100
P1142	143	<.100
P1143	144	<.100
P1144	145	<.100
P1145	146	<.100
P1146	147	<.100
P1147	148	<.100

TABLE 6.1 (CONT'D.)
VERIFICATION RESULTS FOR PUGMILL SAMPLING

P1148	149	<.100
P1149	150	<.100
P1150	151	1.06
P1151	152	<.100
P1152	153	<.100
P1153	154	<.100
P1154	155	<.100
P1155	156	<.100
P1156	157	<.100
P1157	158	<.100
P1158	159	0.369
P1159	160	<.100
P1160	161	<.100
P1161	162	<.100
P1162	163	<.100
P1163	164	<.100
P1164	165	<.100
P1165	166	<.100
P1166	167	<.100
P1167	168	<.100
P1168	169	1.39
P1169	170	0.46
P1170	171	<.100
P1171	172	<.100
P1172	173	0.734
P1173	174	1.38
P1174	175	0.727
P1175	176	0.262
P1176	177	0.919
P1177	178	<.100
P1178	179	0.156

7.0 PHOTO REPRESENTATION

All sites in all phases of the Granite City project were documented by photographs and video cassettes. Each property was documented with before, during, and after photographs and videos. The following sections are representative of the various types of work performed during Phases 1, 2, and 3. Not all properties—only selected, representative samples—are presented in this final report, in order to minimize the volume of paper. All progress work is explained below each photograph and typifies all similar activity.



7.1 TYPICAL ALLEY

These alley photographs represent the typical work effort for all alleys remediated during the project. The fence delineates the excavation area.



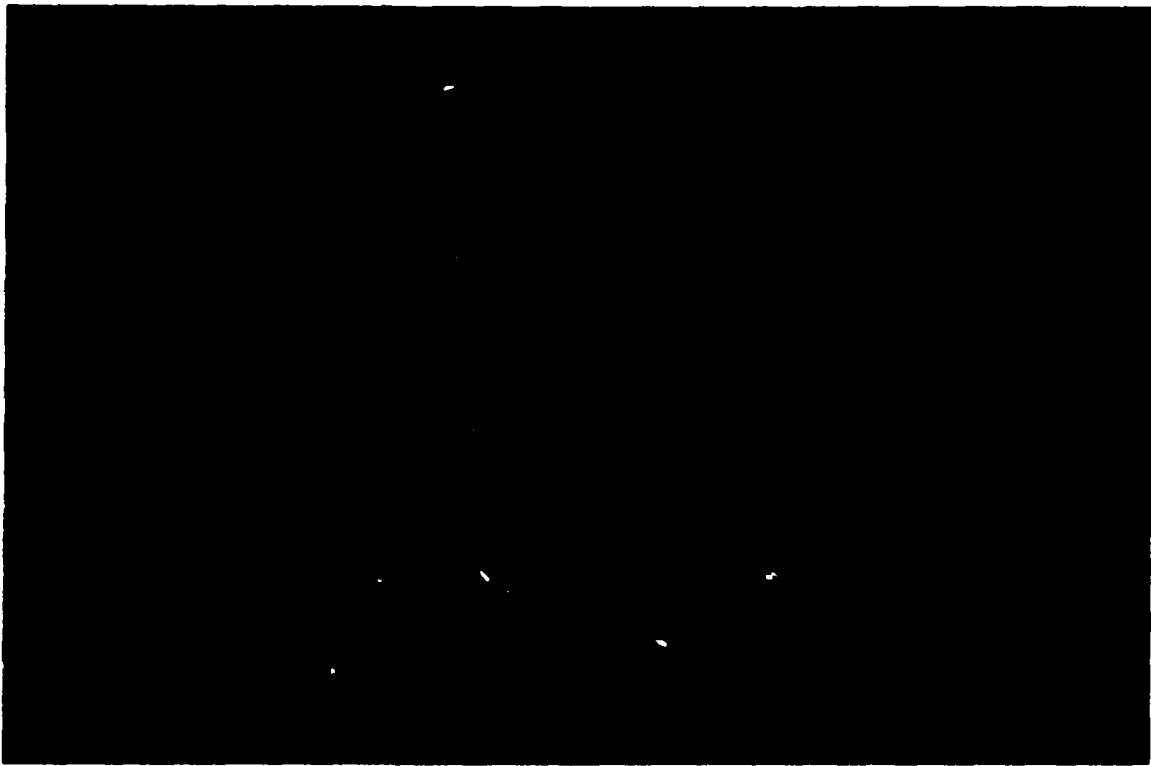


1. View of alley and set-up before excavation.



2. View of alley and set-up before excavation.





3. Manhole cover for drain in alley.



4. Manhole cover for drain in alley.





5. View of alley and set-up before excavation.



6. View of alley and set-up before excavation.





7. View of alley at start of excavation.



8. Alley excavation and air monitoring taking place.



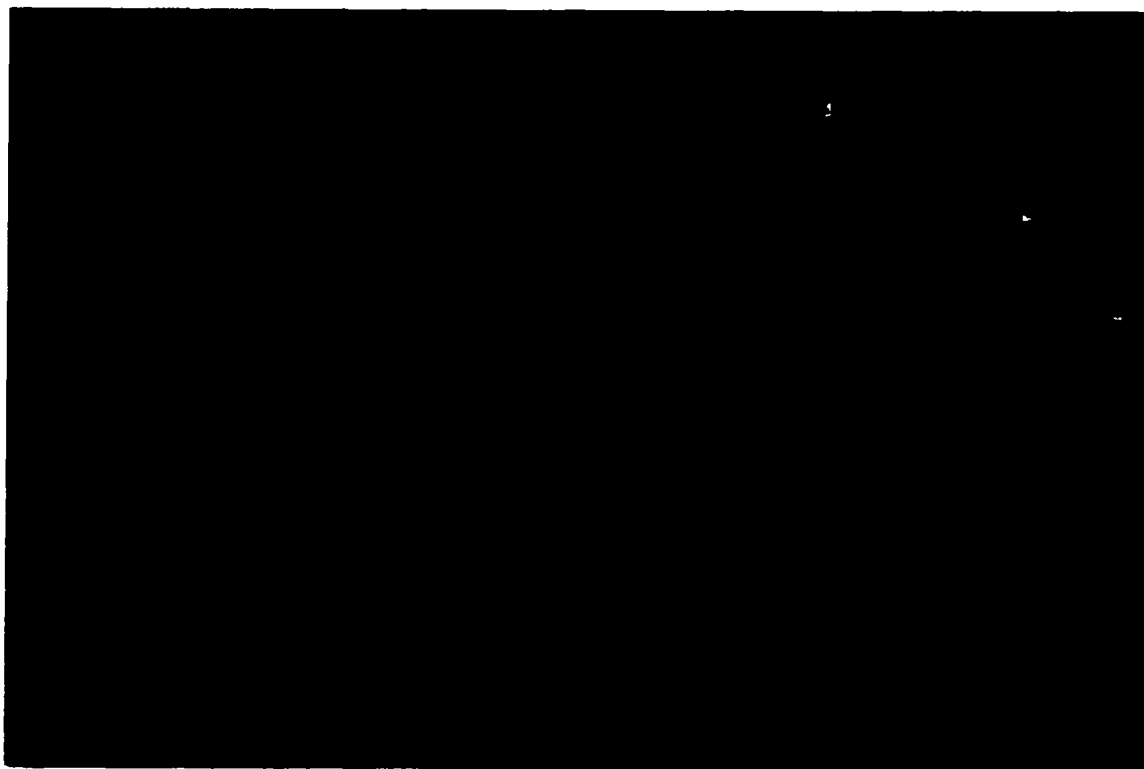


9. View of loadout pile with surrounding orange fencing.



10. View of excavation around manhole for drain.



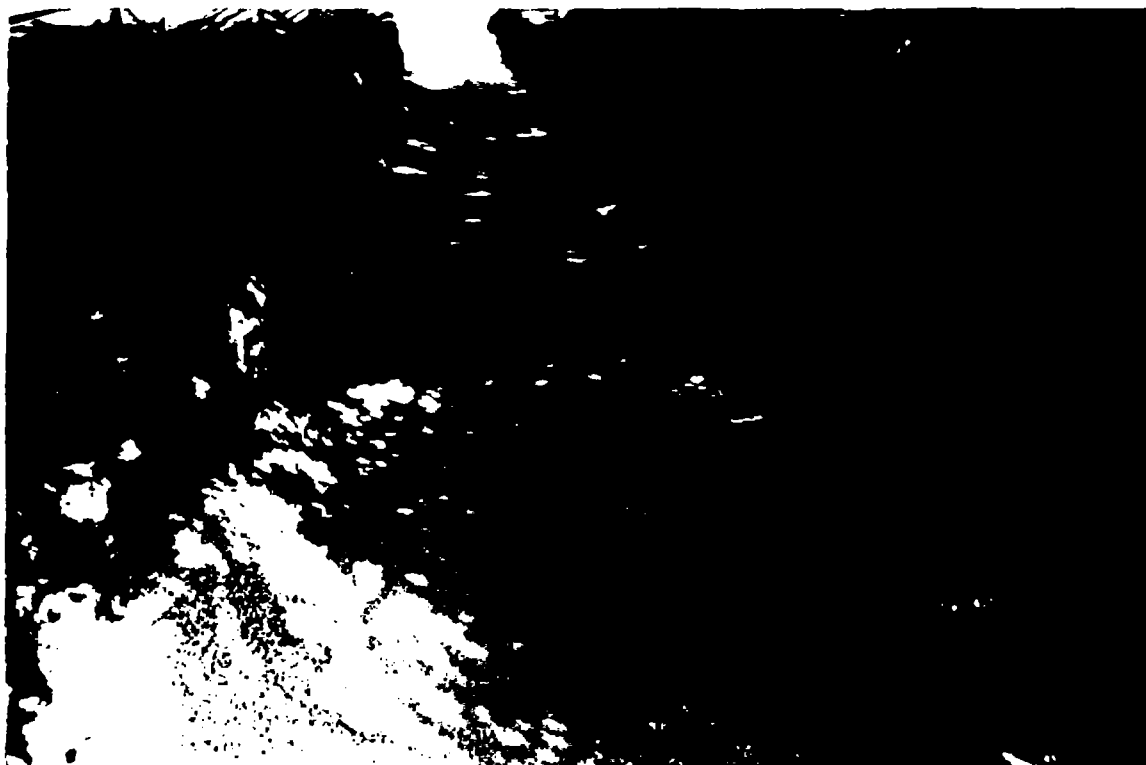


11. View of manhole after excavation has taken place.

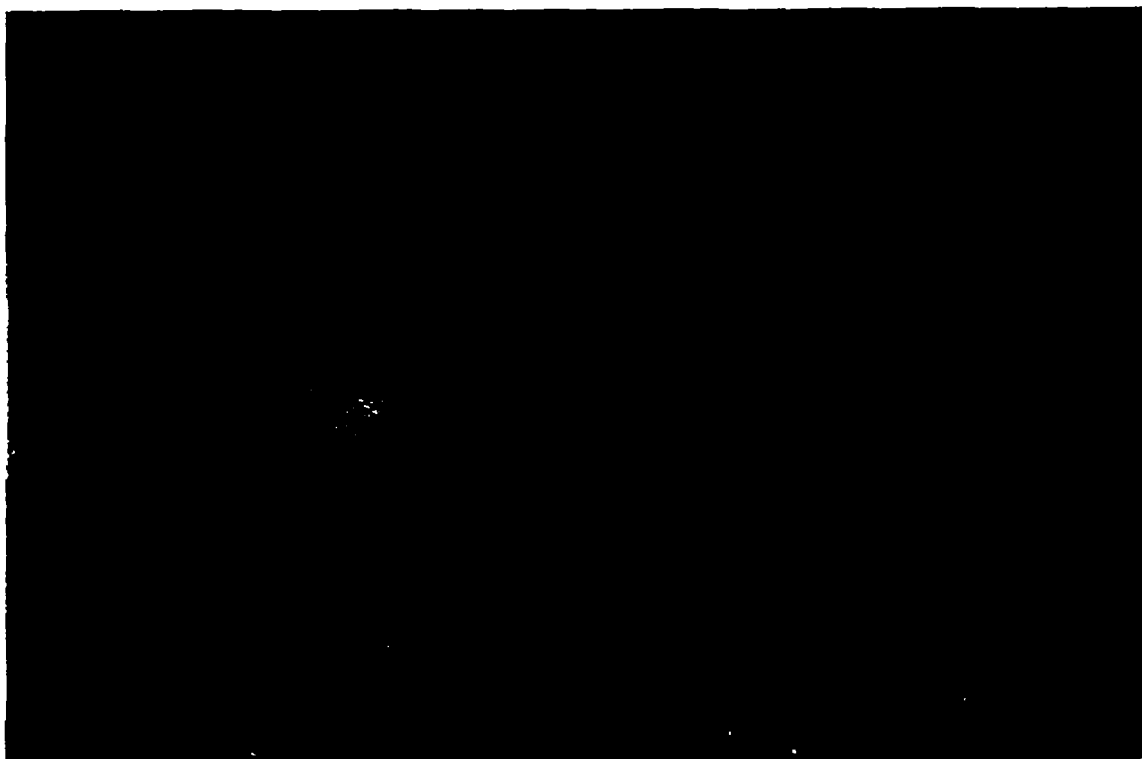


12. View of load-out, set-up, and traffic control.





13. View of CA7 rock in bottom of alley.



14. View of CA6 rock spread over CA7 rock.





15. View of alley being worked to grade.



16. View of alley at the completion of rock work and compaction.





17. View of the spreading of tar over the alley.



18. Pea gravel is spread over the existing tar.



7.2 TYPICAL HAZARDOUS RESIDENCE

These site photographs are typical of the hazardous remediation of Phase 1 work. The pictures depict the activities of remediation from the preparatory phase to excavation and backfill to the placing of seed, fertilizer, and straw.





1. View of residential property prior to excavation.

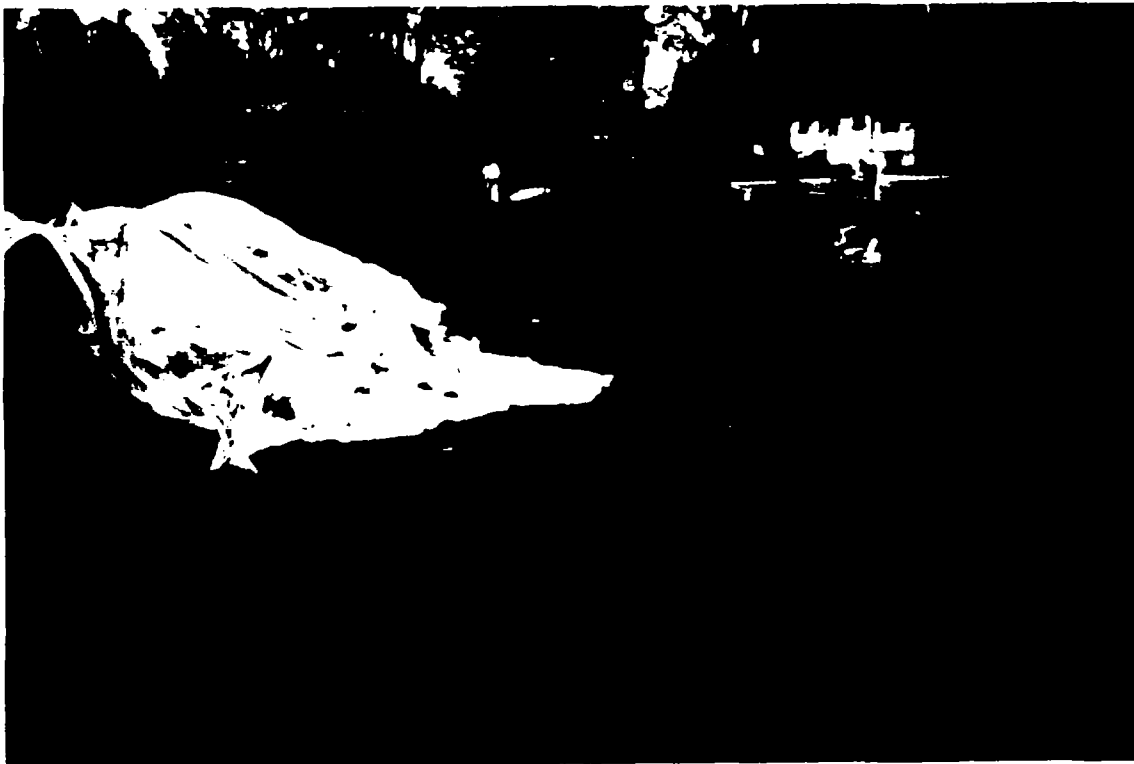


2. View of residential property prior to excavation.



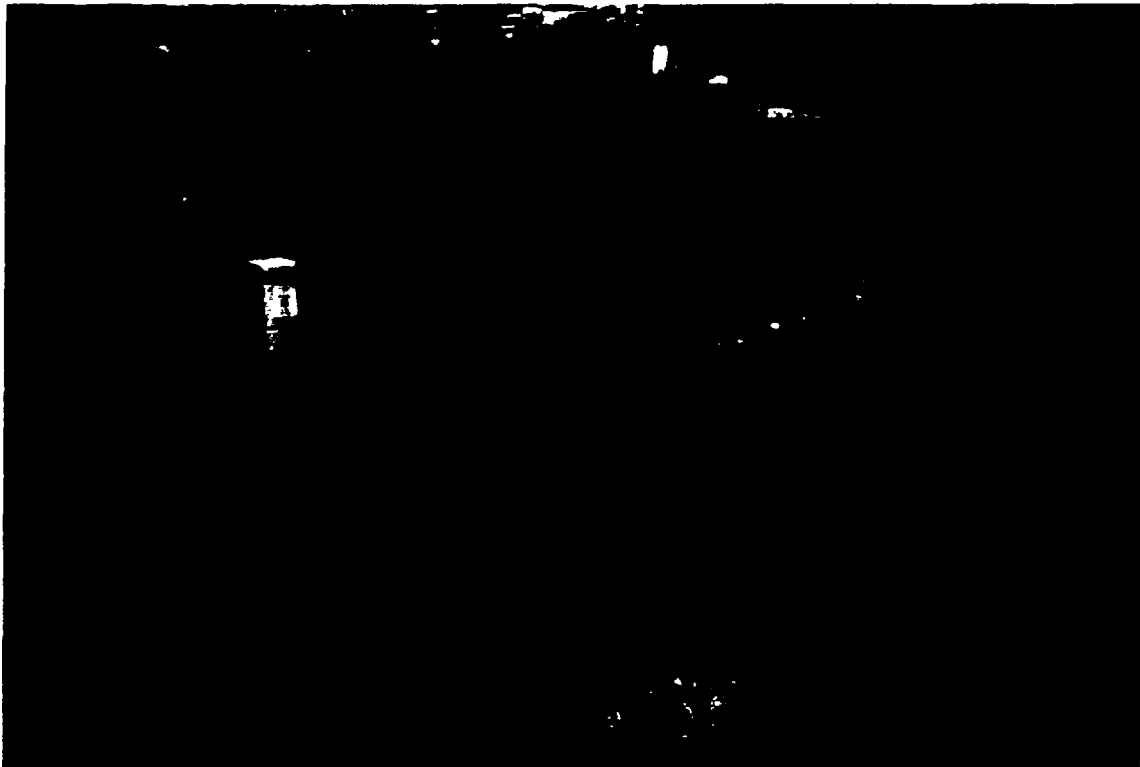


3. View of residential property prior to excavation.

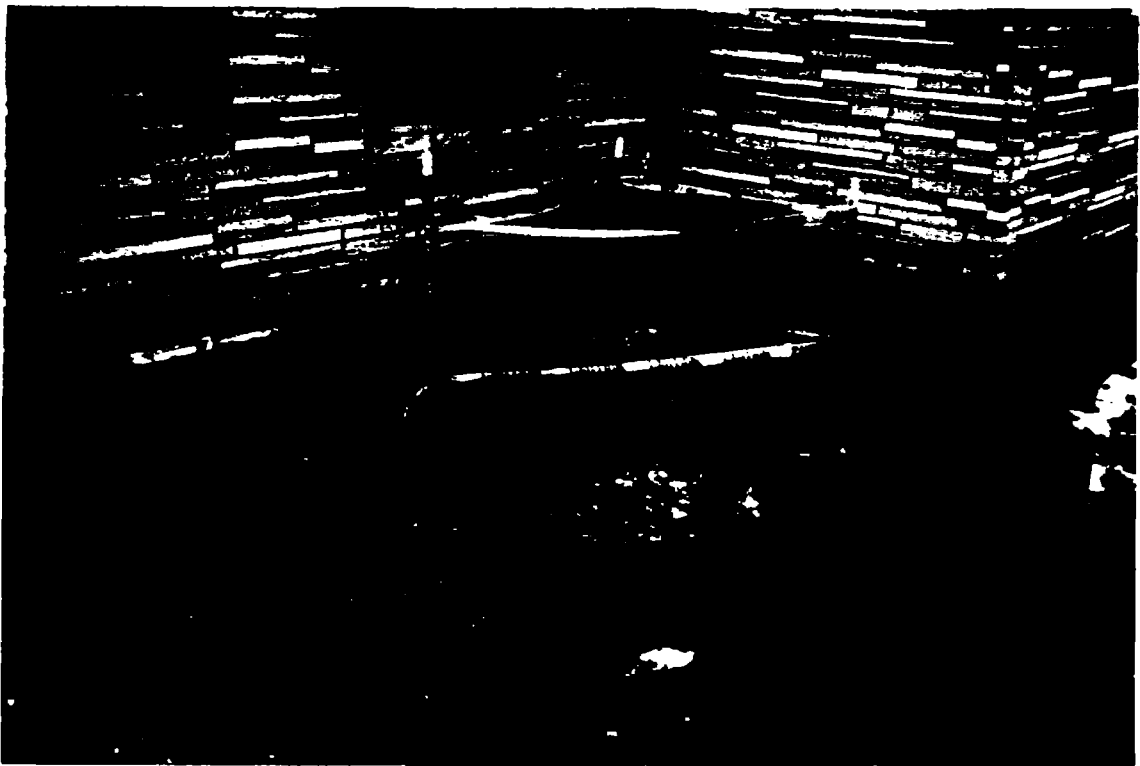


4. View of excavation and load-out pile.





5. View of front yard during excavation process.

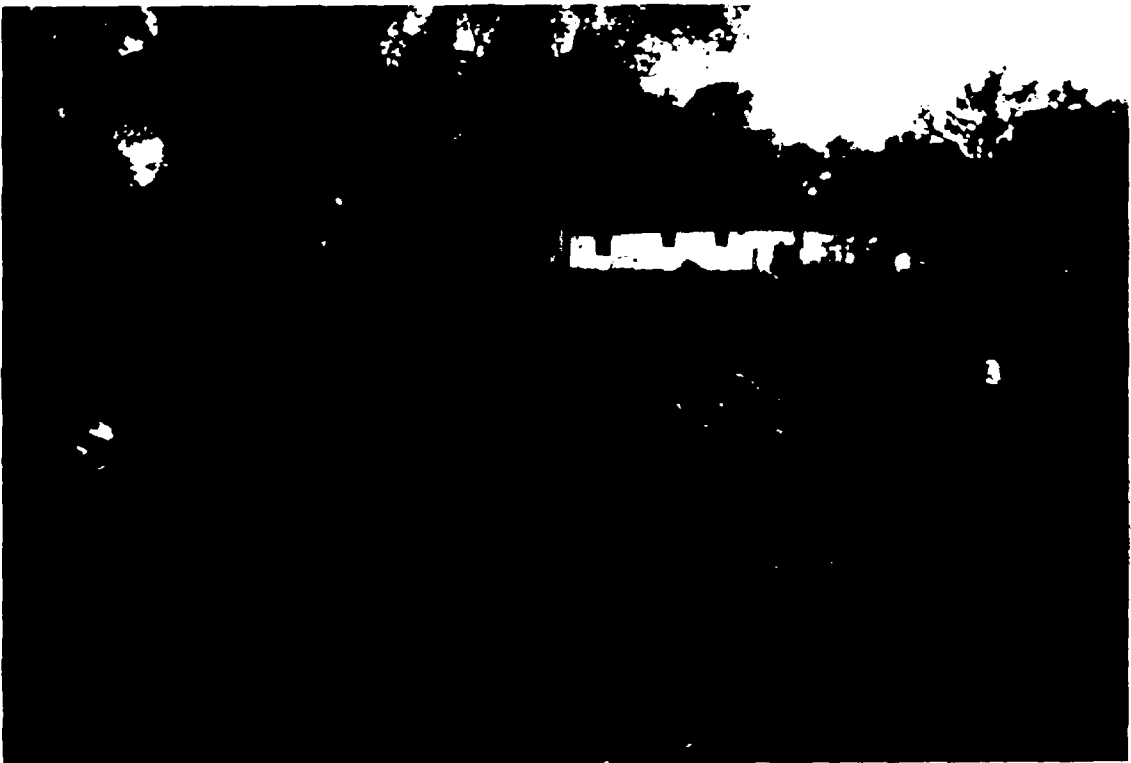


6. View of excavation of old water meter located on premises.





7. Water was pumped from this area during flooding.



8. Considerable mud was encountered during restoration processes.





9. During restoration, a front ditch line was cut.

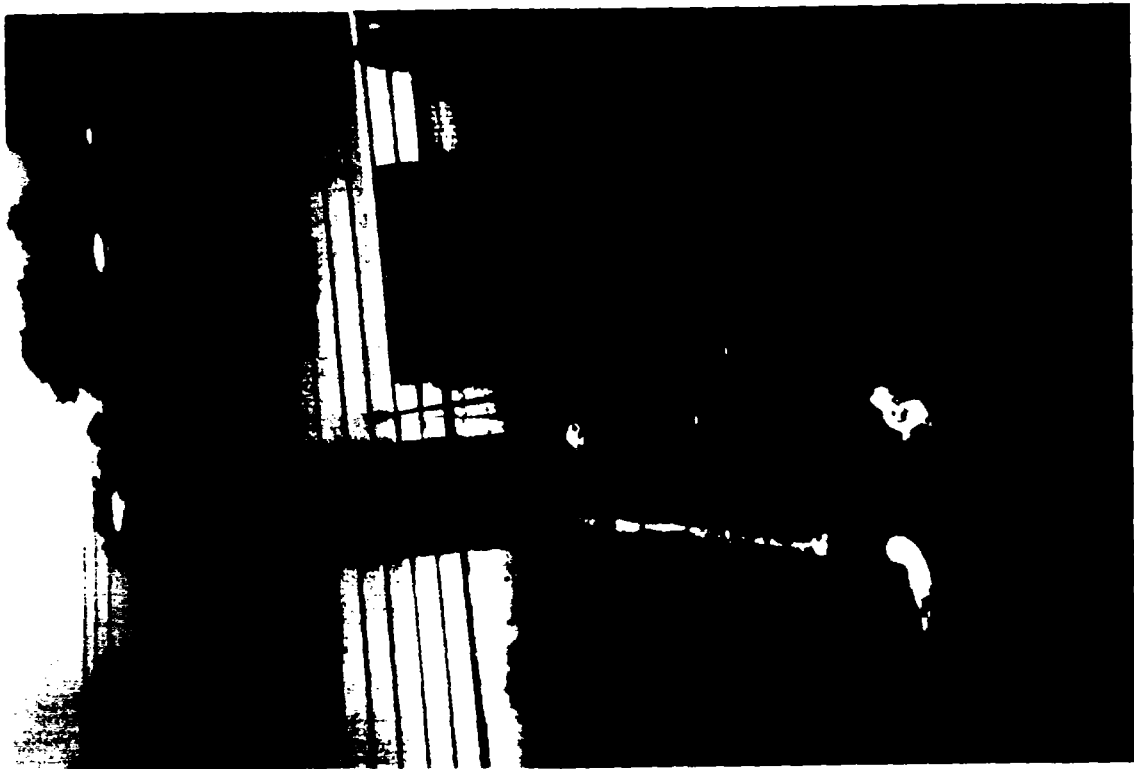


10. Topsoil was covered during rain days.





11. Topsoil is worked to grade.



12. A drain line was repaired prior to area restoration.





13. During restoration activities, a considerable amount of wet dirt was dealt with.



14. A driveway is replaced back to the septic area.





15. Wet dirt is spread out to dry.



16. Yard is compacted prior to final grade.





17. Backyard is compacted and worked to grade.



18. View of front yard, completed with seed, fertilizer, and straw.





19. View of completed side yard (shade covered).



20. View of completed backyard (shade covered).





21. View of completed backyard.



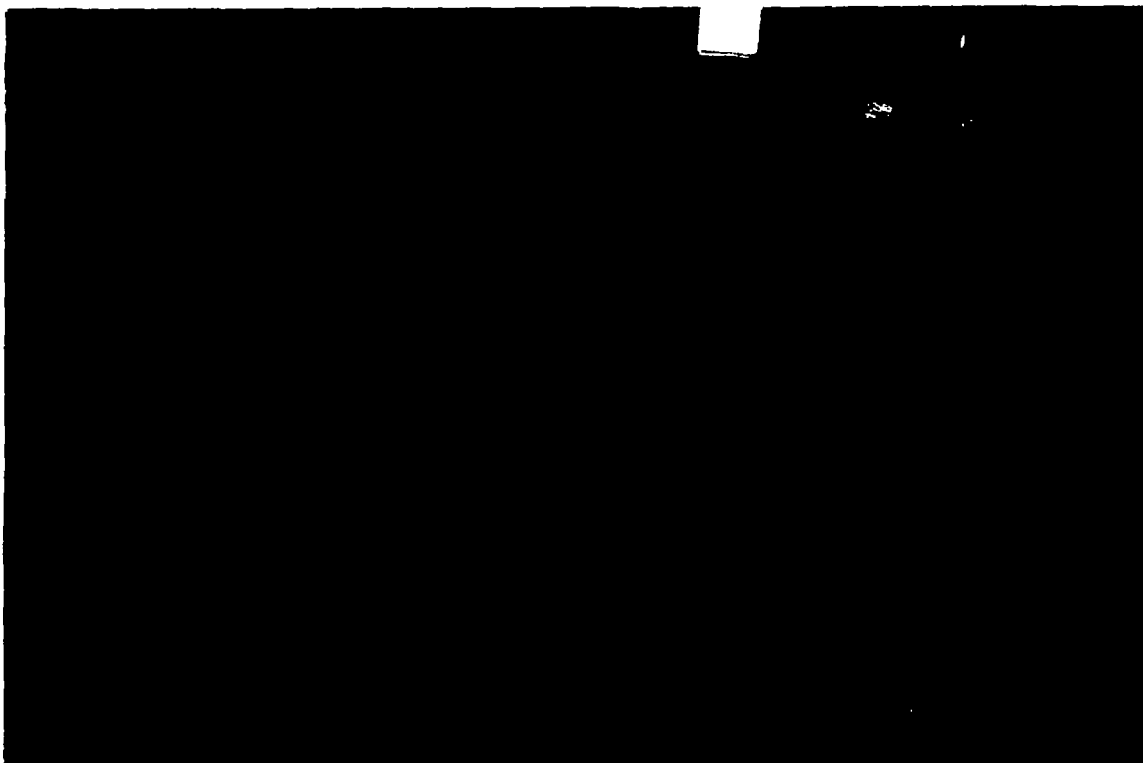
22. View of completed right front yard.



7.3 TYPICAL NON-HAZARDOUS RESIDENCE

A typical stack emission lot is presented in the following photographs. The pictures exhibit the progression of work from beginning to end.





1. View of property before excavation.

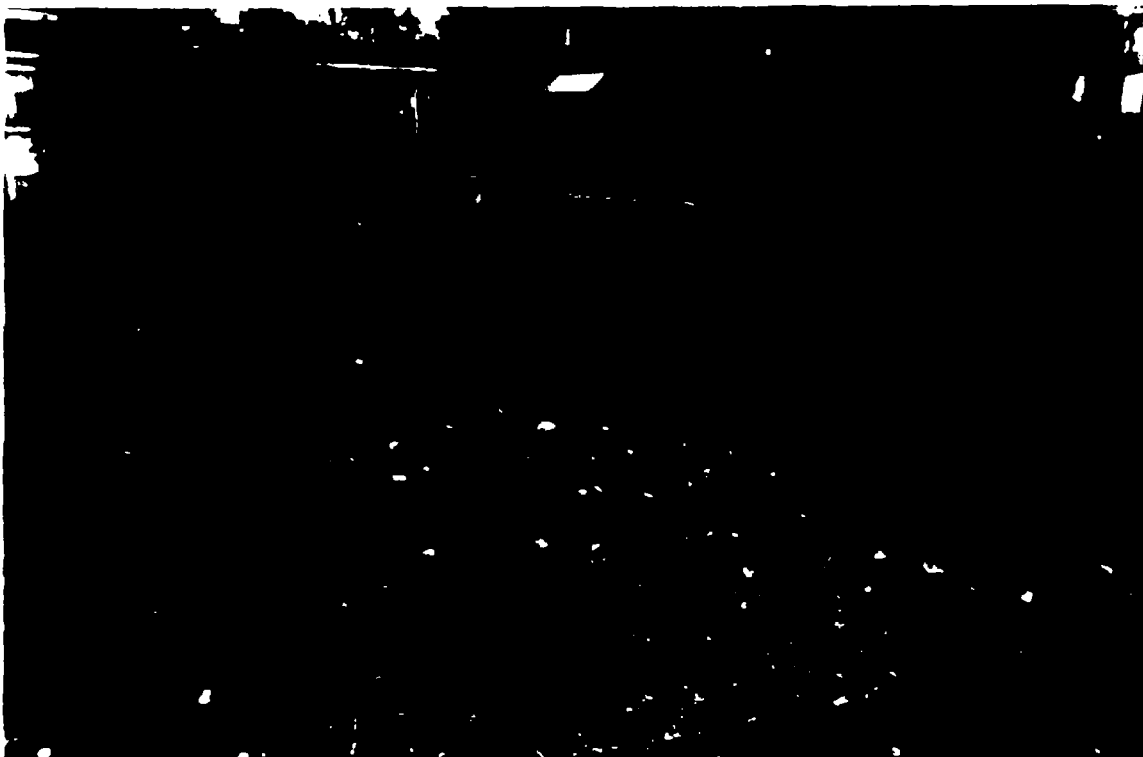


2. View of property before excavation.



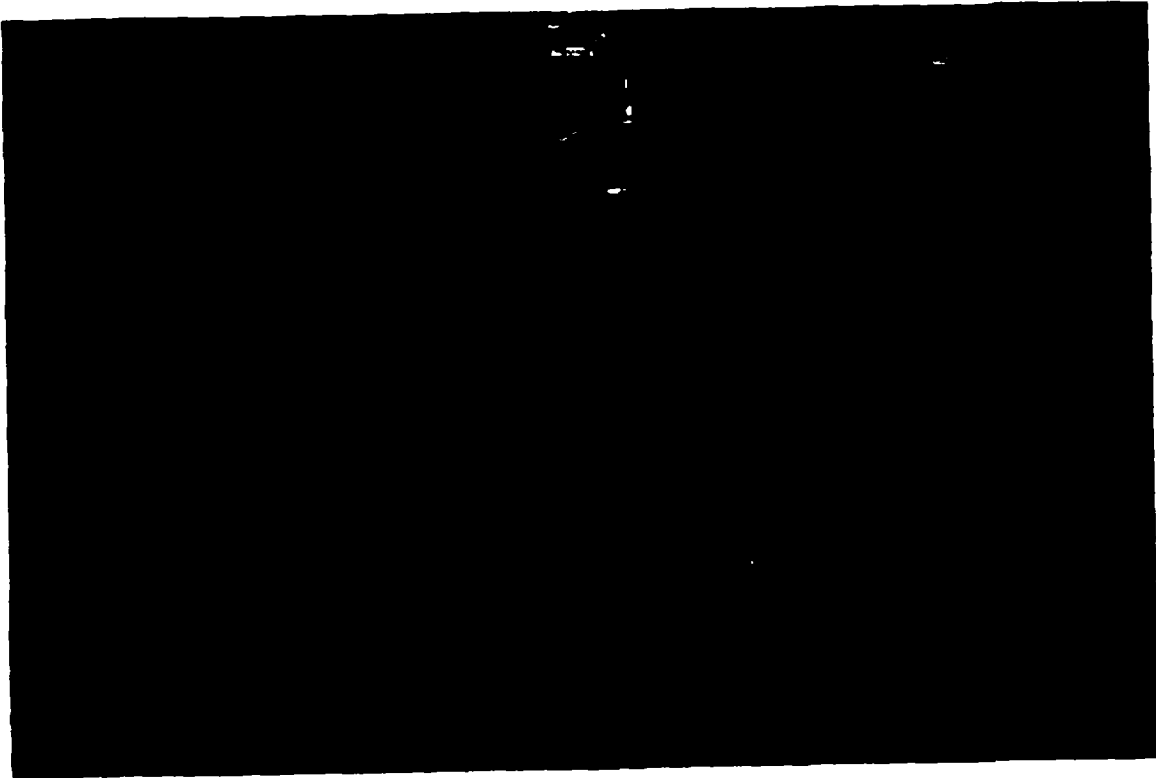


3. View of property before excavation.



4. View of property before excavation.





5. View of property set-up before excavation.

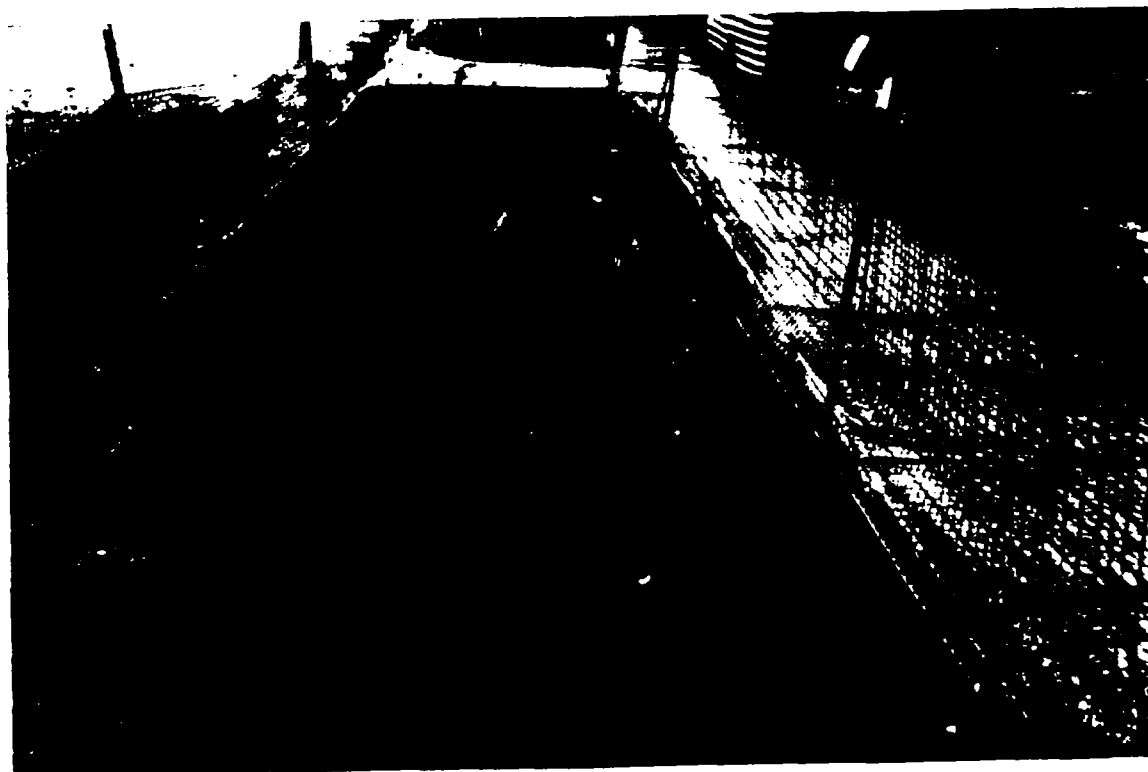


6. View of excavation with spotter waterline located.





7. View of load-out.



8. View of boulevard after excavation.





9. View of front yard after excavation.



10. View of area set-up to back in fill trucks.





11. View of dirt delivery.



12. View of sod delivery.



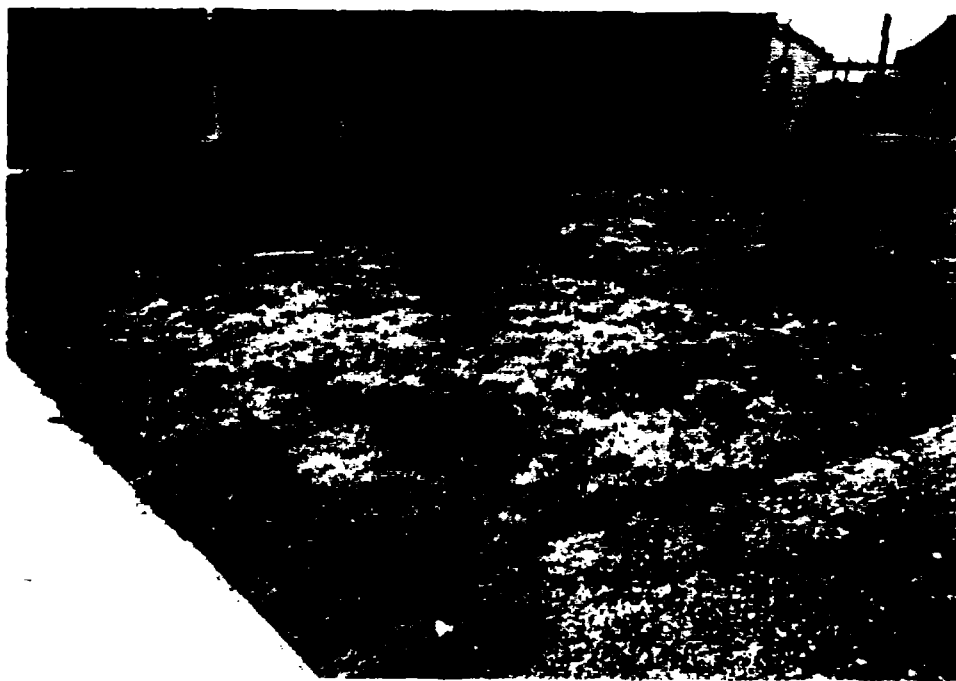


13. View of sod being laid.



14. View of yard after completion.





15. View of completed side yard.



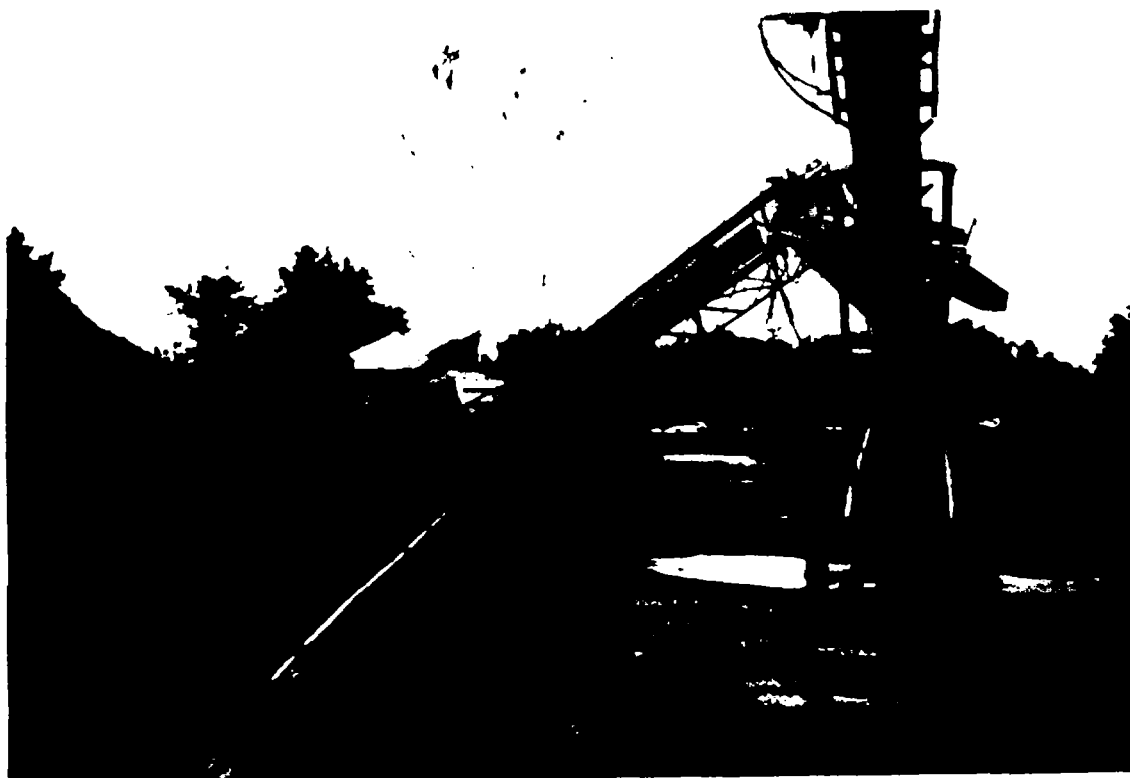
16. View of completed backyard.



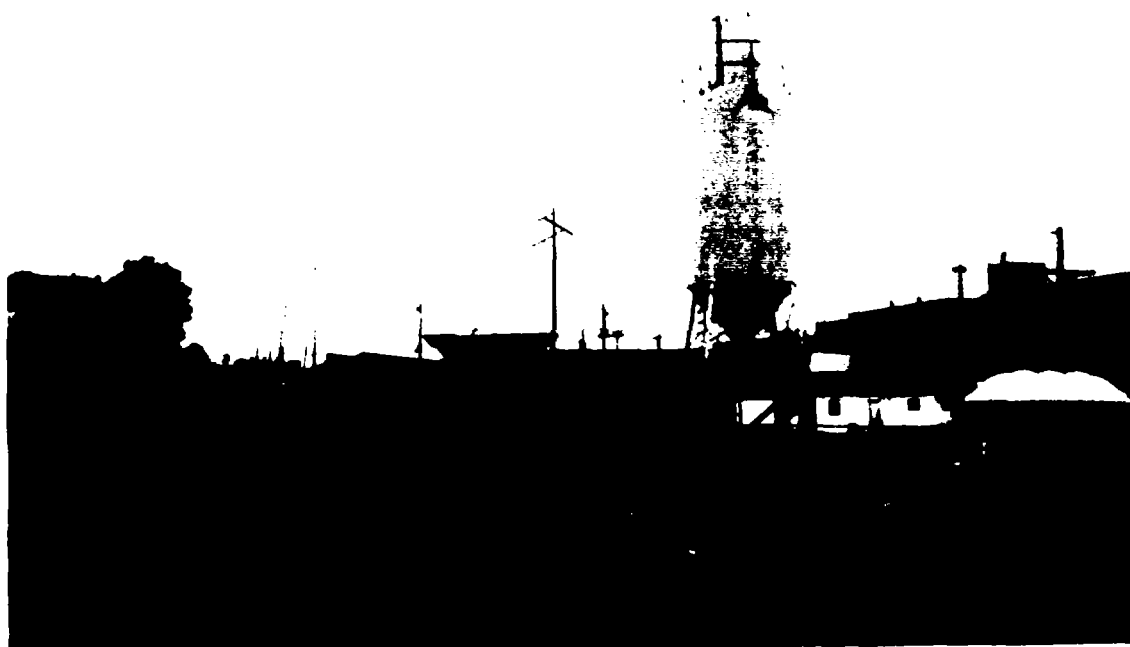
7.4 TYPICAL PUGMILL ACTIVITY

These pictures delineate the typical pugmill operation.





1. View of power screen set-up.



2. View of pugmill and silo set-up.





3. View of pugmill and silo set-up.



4. Training of power screen operation.



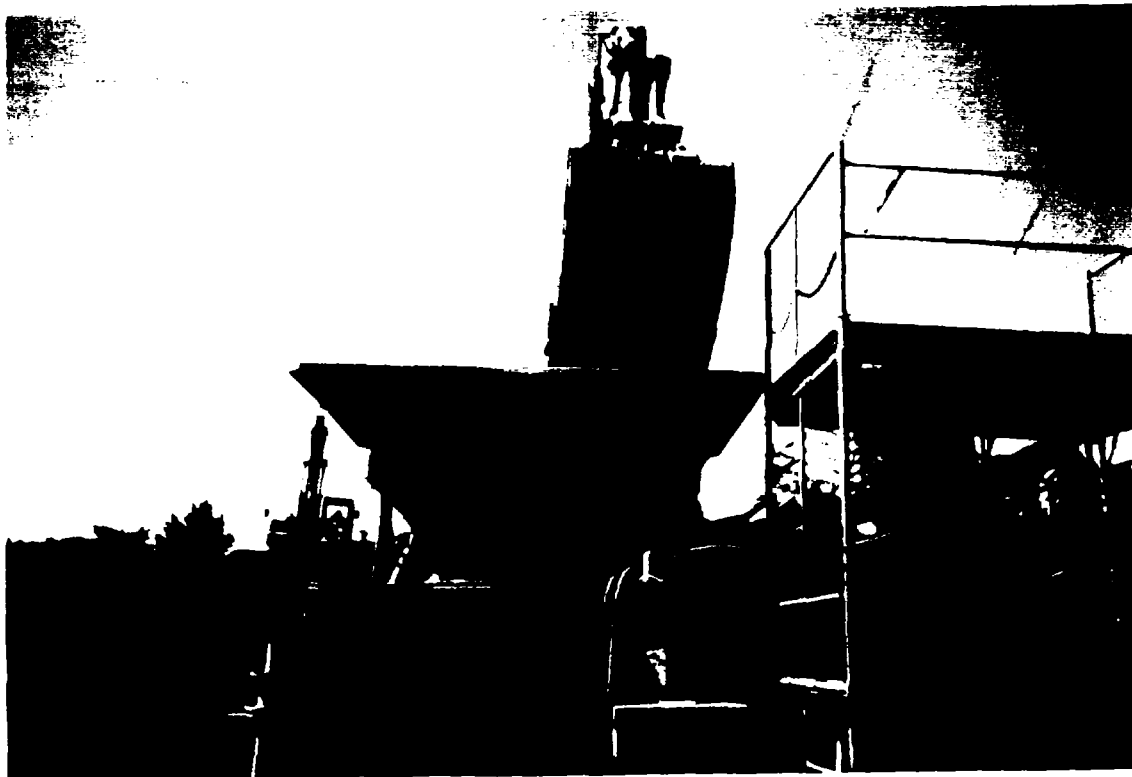


5. Training of pugmill operation.



6. View of hazardous soil being fed into power screen.





7. View of screened hazardous soil being fed into pugmill.



8. View of treated soil to be stockpiled into 100-ton piles.





9. Treated soils being stockpiled--ready to sample.



10. Treated soil is con-covered after sampling to await results.





11. After sampling results have cleared treated stockpiles for load-out, they are moved to the load-out area.



12. Load-out pile con-covered and ready for load-out.





13. Dust control methods are used before and during load-out.



14. The load-out area is set-up and load-out is underway.



1

2

3

APPENDIX A

REMEDIAL LOCATION WORK DESCRIPTIONS

109 ALLEN
111/113 ALLEN
200 ALLEN
203 ALLEN
209 ALLEN
211/13 ALLEN
310 ALLEN
ALLEY 2
ALLEY 7
ALLEY 14
ALLEY 18
ALLEY 22
ALLEY 25
ALLEY 30
ALLEY 39
ALLEY 39
ALLEY 54
ALLEY 55
ALLEY 57
ALLEY 66
ALLEY 69
ALLEY 70
HARRISON/TERRY ALLEY
HILL/TERRY ALLEY
108B CARVER
114 CARVER
225/27 CARVER
208 HARE
209 HARE
100 HILL

205 HILL
100 HARRISON
200 HARRISON
211 HARRISON
218 HARRISON
104 ROOSEVELT
108 ROOSEVELT
SAND ROAD #1
SAND ROAD #2
SCHAEFFER ROAD
204 TERRY
204B TERRY
206 TERRY
311 TERRY
1412 STATE
PUGMILL
1716 CHESTNUT
1732/34 CHESTNUT
1739 CHESTNUT
1751 CHESTNUT
1754 CHESTNUT
1624/26 CLEVELAND
1628 CLEVELAND
1630/32/34 CLEVELAND
1708 CLEVELAND
1726 CLEVELAND
1919 CLEVELAND
1619 DELMAR
1624 DELMAR
1625 DELMAR

5

5

5

Action Date:2/13/95

Loadout:2/13/95

Restoration Begins:3/21/95

Restoration Completed:4/3/95

*Visual contamination was excavated yielding an estimated 381.51 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 35.75 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 8" the entire area of the lot.

*Problems incurred:

*OHM hit and repaired a line while loading out of this lot.

*Equipment utilized during excavation:

*JD490 Excavator

*17K generator

*TL26 Loader

*JBC214 Backhoe

*JD Tractor

*Roller

*444E Loader

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR 109 ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6 STONE	CA-7 STONE	SAND River	SOD/SEED	CONCRETE
381.51 YDS	35.75 YDS	11 LOADS		30.75 TON		26.5 TON	SEED	

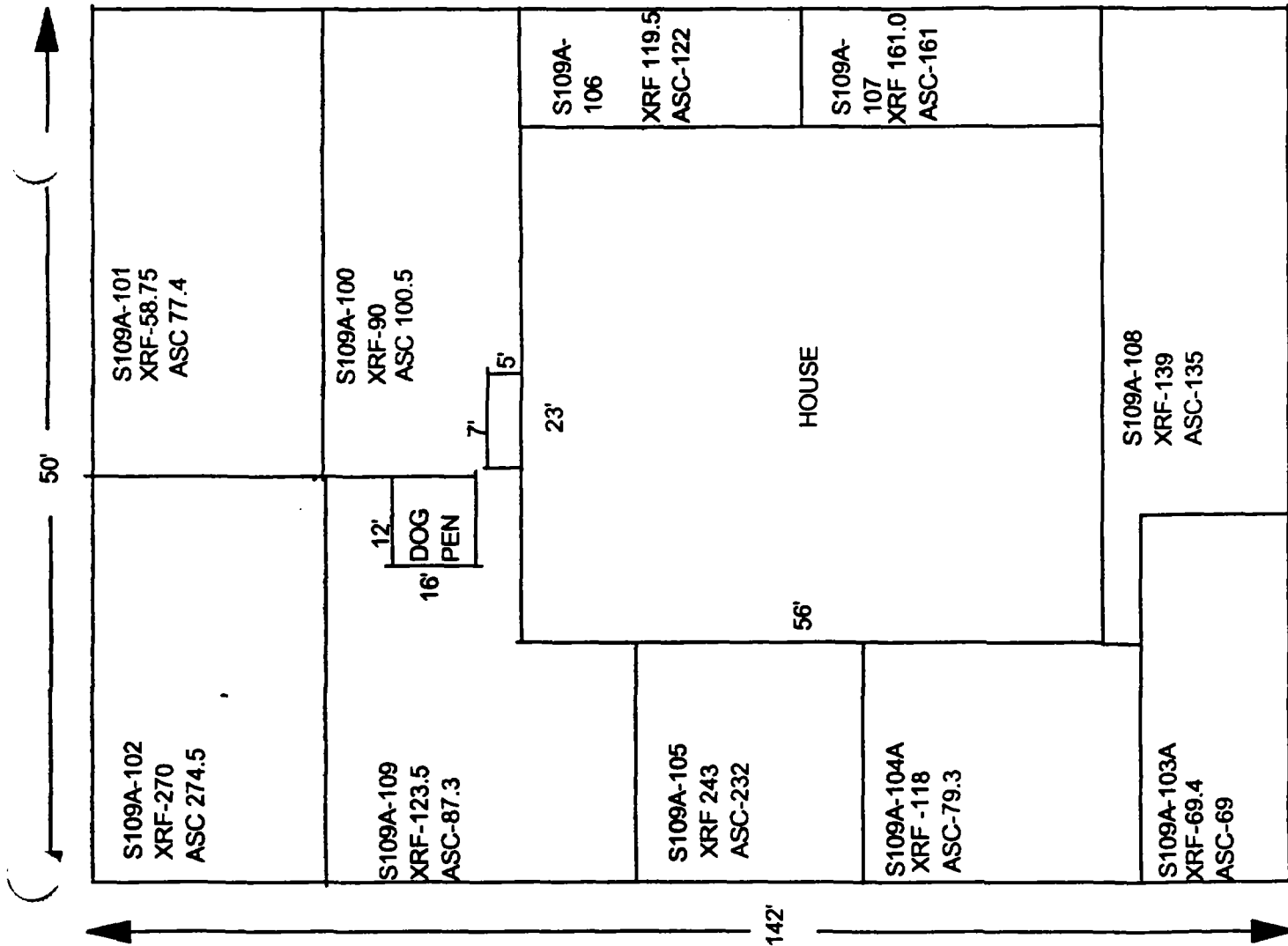
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

ADDRESS: 109ALLEN

[illegible]



* RESULTS IN PPM

109 ALLEN
TOTAL DIMESIONS
125 X 50
3/16/95

DRAWN BY: LR

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)

111/113 Allen

Action Date: 2/17/95

Load-out: 2/17/95

Restoration Begins: 3/24/95

Restoration Completed: 3/24/95

*Visual contamination was excavated yielding an estimated 466.29 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 62.22 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 1 foot the entire area of the lot.

*Problems incurred:

*A drain pipe was installed across the driveway

*A mobile home trailer was removed by owner so excavation could be done in that area

*Equipment utilized during excavation:

*JBC214 backhoe

*PC-120 excavator

*17K generator

*TL26 loader

*JD 490 backhoe

*Roller

*JD tractor

*444E loader

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANINTITY SUMMARY FOR '11/1/113 ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
466.29 YDS	62.22	21 LOADS	70.75 TO	03.95 TON			SEED	

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

ADDRESS: 113ALLEN

[illegible]

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: 111ALLEN

[illegible]

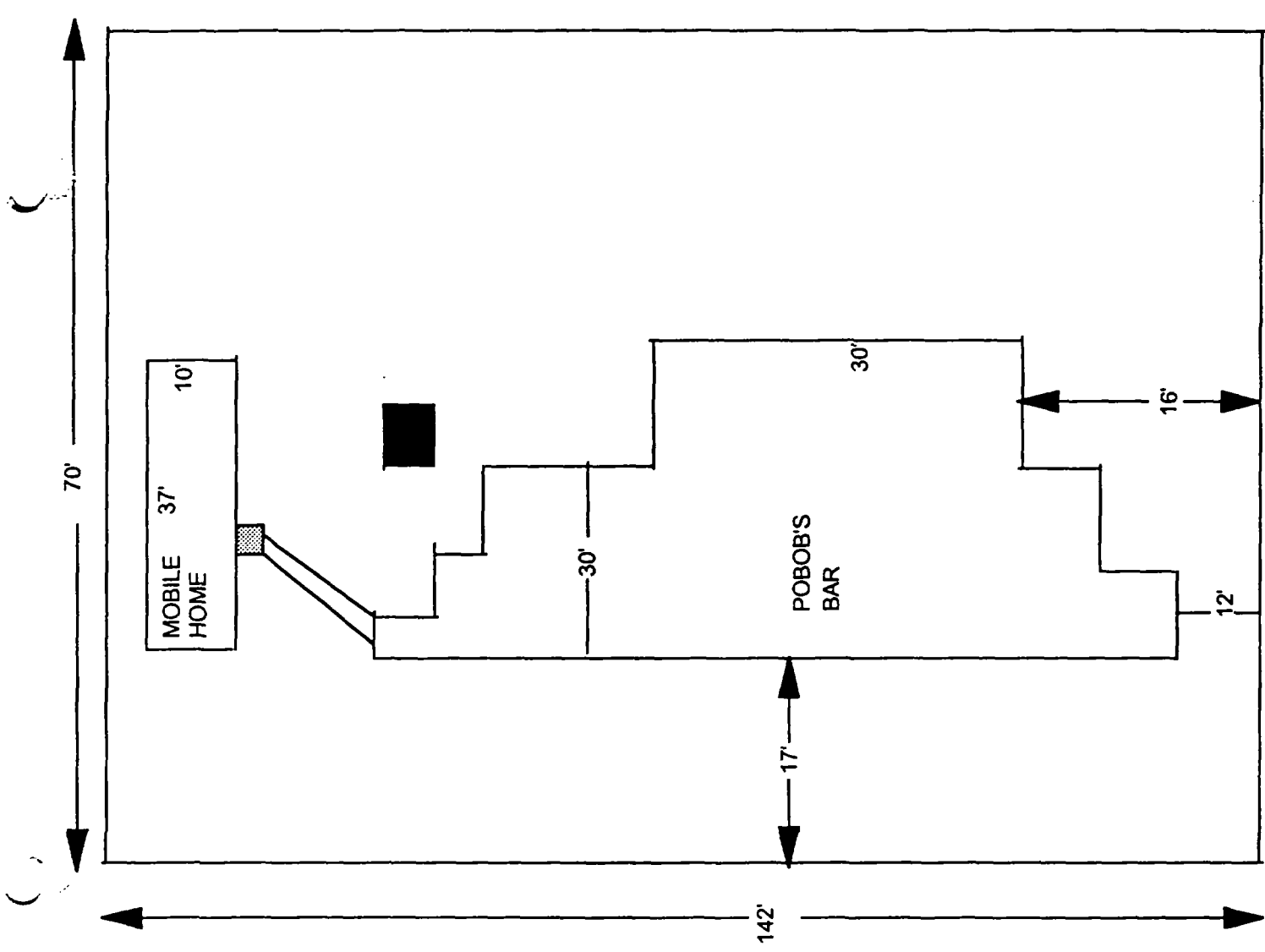
S111A-105 XRF-49.6 ASC-43.65	S111A-100 XRF-25.0 ASC-23
S111A-106 XRF-31.9 ASC-38.8	S111A-101 XRF-20.0 ASC-46
S111A-107 XRF-64.65 ASC-72.1	S111A-102 XRF-81.0 ASC-64.3
S111A-108 XRF-47.9 ASC-37.8	S111A-103 XRF-52.25 ASC-50
S111A-109 XRF-108.5 ASC-102	S111A-104 XRF-283.5 ASC-237


142'


54'

111 ALLEN
TOTAL DIMENSIONS:
142 X 54
2/13/95

DRAWN BY: LR



 = 4 X 8 PORCH

 = 5 X 6N SHED

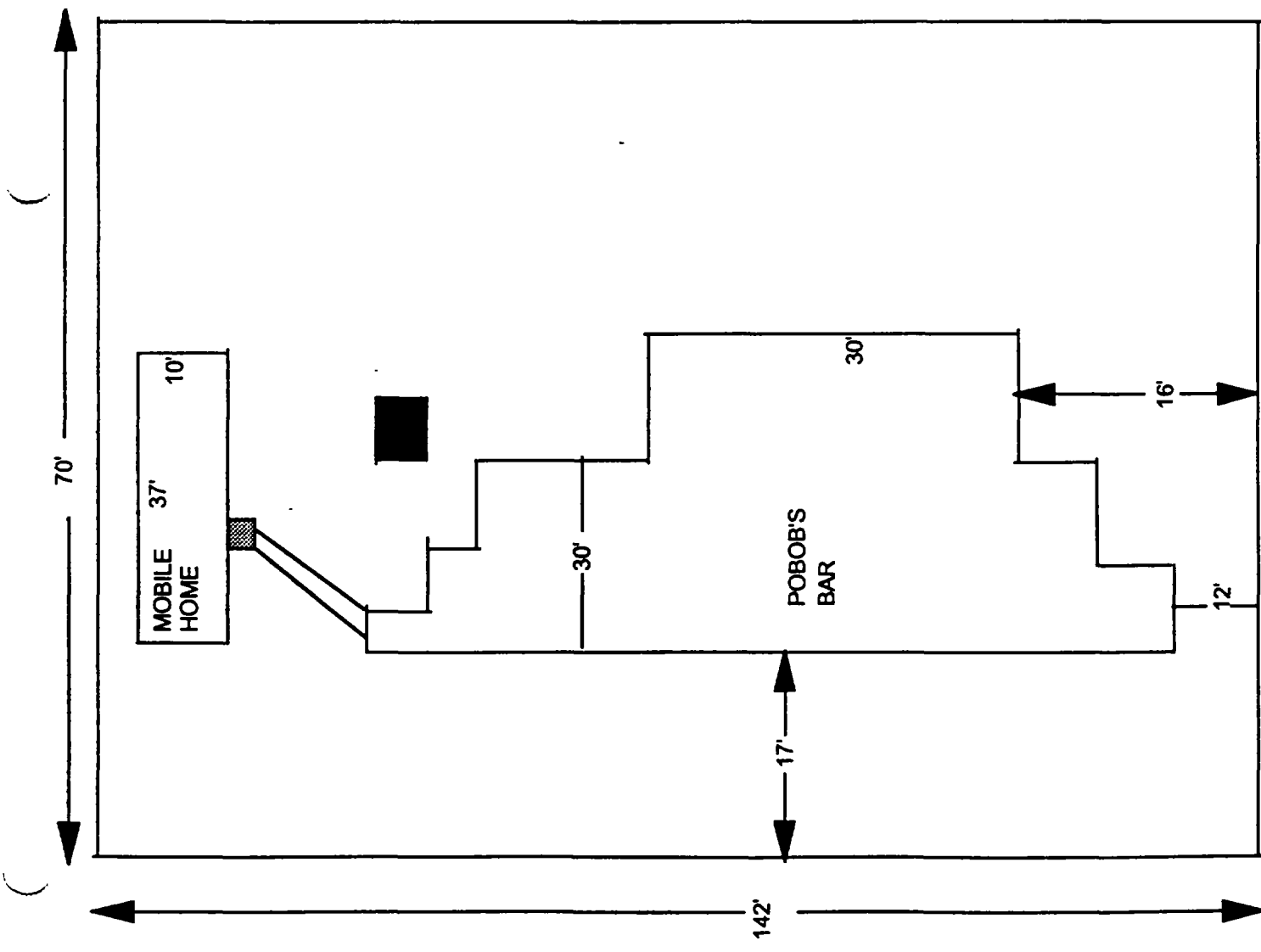
113 Allen
POBOB'S BAR
TOTAL DIMENSIONS:
142' X 70'
2/13/95
DRAWN BY : LR

111 ALLEN
TOTAL DIMENSIONS:
142 X 54
2/13/95


DRAWN BY: LR

142'

54'



 = 4 X 8 PORCH

 = 5 X 6N SHED

POBOB'S BAR
TOTAL DIMENSIONS:
142' X 70'
2/13/95

DRAWN BY : LR

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200 Allen

Action Date: 11/11/95

Loadout: 11/14/95

Restoration Begins: 11/27/95

Restoration Completed: 11/27/95

*Visual contamination was excavated yielding an estimated 347.8 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 0.0 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 36 inches for this property.

*Problems incurred:

None

*Equipment utilized during excavation:

*Roller

*JD tractor

*17K generator

*TL26 Loader

*X331 bobcat

*JCB 214

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

PRE-CHARACTERIZATION RESULTS OF SITES WITH VISIBLE BATTERY CHIPS

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	FIXED LAB TOTAL PB	FIXED LAB TCLP PB	OHM APPROVAL	USACE APPROVAL	EPA APPROVAL
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211/213 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			
104 ROOSEVELT	P104R-1	7960	8730	2.75			
310 ALLEN	P310A-2	5286.5	7620	6.14			
200 ALLEN	P200A-4	4289	3390	1.39			
108 ROOSEVELT	P108R-4	3033.5	5400	1.84			
207 HILL	P207HI-11	2368.5	2440	1.2			
208 HARE	P208HA-11	5015	3710	1.18			
HARRISON-WATSON ALLE	HN-W-1043	2700	2220	0.534			
1430/32 THIRD	143032TH-1	36					
	143032TH-2	49.5					

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

ALL OHM SAMPLES TAKEN AT A DEPTH OF 0"-6"

ALL SITE PRE-CHARACTERIZATION SAMPLES ADHERE TO CDAP

200 Allen had no verification sampling done due to the fact that the lot was remediated to a 3 foot depth which per the USEPA is the cap limit.

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

200 ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
347.8	0	22	89.29	73.5	14.85		SEED	

House
27'9" x 13'

drive

200 Allen

Total Dimensions: 57' x
130'

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203 Allen

Action Date: 7/8/95

Loadout: 7/8/95

Restoration Begins: 7/20/95

Restoration Completed: 7/28/95

*Visual contamination was excavated yielding an estimated 748.89 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 2.64 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 3 foot the entire area of the lot.

*Problems incurred:

*During excavation the fence was damaged then replaced during restoration.

*OHM had trouble getting grass to grow and OHM had to reseed property.

*Equipment utilized during excavation:

*Bobcat-Excavator

*TL26 Loader

*PC-120 Excavator

*Roller

*17K generator

*2" pump

*JD Tractor

*444E Loader

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: 203 ALLEN

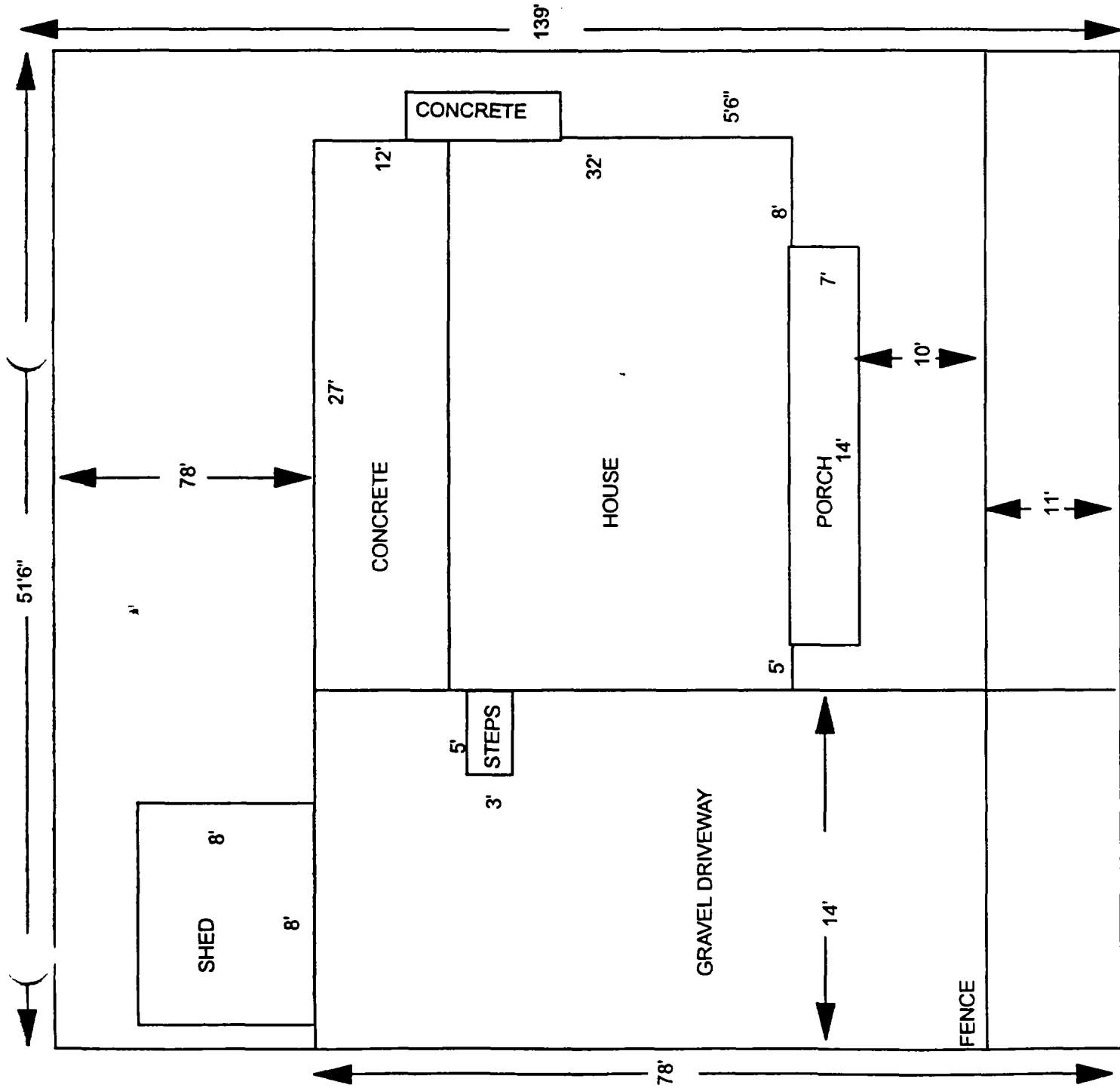
HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
748.89	2.64	40 LOADS	172.61	47.5	42.3		SEED	

203 Allen had no pre-characterization samples.
OHM remediated the lot under USEPA direction.

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

ADDRESS: 203 ALLEN

[illegible]



203 ALLEN

7/7/95

TOTAL DIMENSIONS:

51'6" X 139"

DRAWN BY: AS

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209 Allen

Action Date:10/14/95

Loadout:10/19/95

Restoration Begins:10/28/95

Restoration Completed:11/16/95

*Visual contamination was excavated yielding an estimated 720.63 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 38.42 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 3 foot the entire area of the lot.

*Problems incurred:

*OHM damaged and repaired a drain filed on a septic.

*Equipment utilized during excavation:

*Bobcat-Excavator	*17K generator
*TL26 Loader	*2" pump
*PC-150 Excavator	*JD Tractor
*Roller	*444E Loader

*Subcontractors

*AWS	-hauling hazardous and special waste
*Grantham	-hauling stone, fill, topsoil
*WMI	-landfill

OHM CORPORATION
 PROJECT 16473
 GRANITE CITY, IL

QUANTITY SUMMARY FOR :

209 ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
720.63	38.42	52	193.95	82.65	28		SEED	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

209 ALLEN

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S209A	100	37	28.2
	101	37	58.2
	102	57.5	34.8
	103	49	36.7
	104	86.5	65.9
	105	38.5	24.9
	106	191.5	238
	107	88.5	65.8
	108	30	18.9
	109	58.5	28.4

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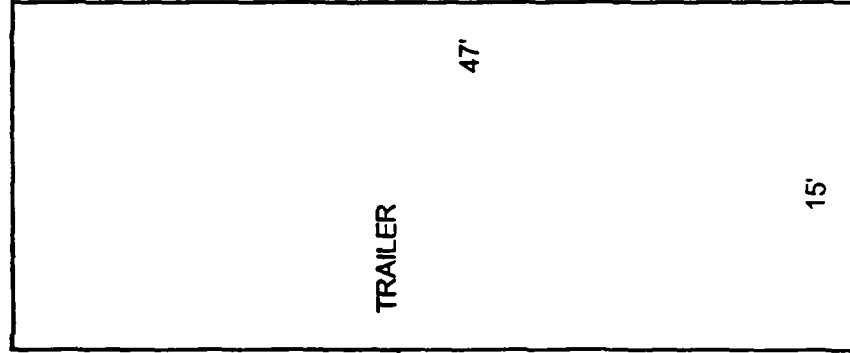
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209 ALLEN

60' X 125'

9/21/95

DRAWN BY:AS



SIDEWALK

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Action Date: 10/18/95

Loadout: 10/19/95

Restoration Begins: 10/28/95

Restoration Completed: 11/16/95

*Visual contamination was excavated yielding an estimated 1554.3 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 29.9 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 2 foot the entire area of the lot.

*Problems incurred:

*Weather

*Equipment utilized during excavation:

*Bobcat-Excavator

*TL26 Loader

*PC-150 Excavator

*Roller

*17K generator

*2" pump

*JD Tractor

*444E Loader

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

211/13ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
1554.3	29.9	6	191.85	14.1	55.9		SEED	

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

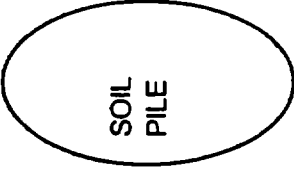
* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

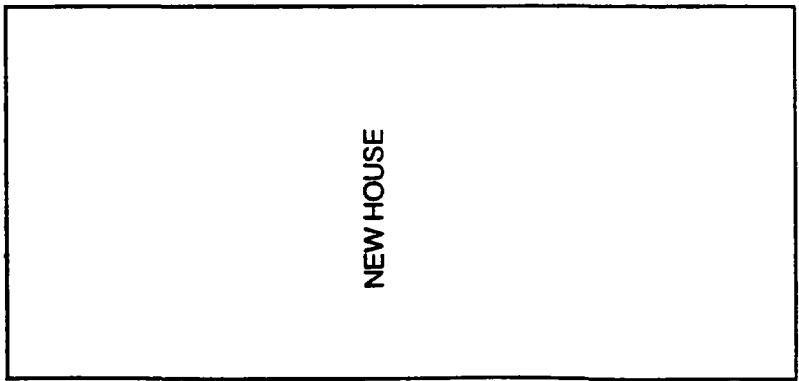
FINAL VERIFICATION RESULTS FOR:

211/213 ALLEN

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S211A	100	267.5	347
	101	117	125
	102	124.5	109
	103	182.5	185
	104	1066	ESAMPLE #113
	105	251	301
	106	304	174
	107	103.5	123
	108	60	48.3
	109	135	97.6
	110	73	176
	111	226	307
	112A	177.5	199
	113	285	285



SOIL
PILE



NEW HOUSE

211/213 ALLEN

100' X 125'

9/21/95

DRAWN BY:AS

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Action Date:10/26/95

Loadout:10/27/95

Restoration Begins:11/10/95

Restoration Completed:11/17/95

*Visual contamination was excavated yielding an estimated 423.9 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 6.46 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 8" the entire area of the lot.

*Problems incurred:

*Crew found a crushed drum containing tar that had to be disposed of at WMI-Milam.

*Equipment utilized during excavation:

*Bobcat-Excavator	*17K generator
*TL26 Loader	*2" pump
*PC-120 Excavator	*JD Tractor
*Roller	

*Subcontractors

*AWS	-hauling hazardous and special waste
*Grantham	-hauling stone, fill, topsoil
*WMI	-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

310 ALLEN

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
423.9	6.46	32			42.85		SEED	

PRE-CHARACTERIZATION RESULTS OF SITES WITH VISIBLE BATTERY CHIPS

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	FIXED LAB TOTAL PB	FIXED LAB TCLP PB	OHM APPROVAL	USACE APPROVAL	EPA APPROVAL
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211/213 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<1.00			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			
104 ROOSEVELT	P104R-1	7960	8730	2.75			
310 ALLEN	P310A-2	5286.5	7620	6.14			
200 ALLEN	P200A-4	4289	3390	1.39			
108 ROOSEVELT	P108R-4	3033.5	5400	1.84			
207 HILL	P207HI-11	2368.5	2440	1.2			
208 HARE	P208HA-11	5015	3710	1.18			
HARRISON-WATSON ALLE	HN-W-1043	2700	2220	0.534			
1430/32 THIRD	143032TH-1	36					
	143032TH-2	49.5					

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

ALL OHM SAMPLES TAKEN AT A DEPTH OF 0"-6"

ALL SITE PRE-CHARACTERIZATION SAMPLES ADHERE TO CDAP

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR: 310 ALLEN

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S310A	100	76	75.6
	101	62	61.1
	102	173.5	168
	103	149.5	162
	104	274	228
	105	107.5	89.3
	106	248	291
	107	108	190
	108	319	324
	109	248.5	266

310 ALLEN

TOTAL DIMENSIONS:

50' X 125'

10/27/95

DRAWN BY:AS

ALLEN ST

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Alley 2

Action Date:5/15/95

Loadout: 6/6/95

Restoration Begins:6/24/95

Restoration Completed:6/28/95

***Visual contamination was excavated yielding an estimated 1695.06 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 35.57 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 36 inches for this property.**

***Problems incurred:**

Manhole found 18" below grade. Was covered during restoration. City of Venice had OHM re-excavate this area and had their contractor raise the manhole to grade. OHM backfilled the area per USACE rep. Tom Bloodworth.

***Equipment utilized during excavation:**

***444E-JD loader**

***Roller**

***17K generator**

***TL26 Loader**

***Komatsu D-3 Dozer**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone

***WMI**

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 2

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY STONE	SOD/SEED	CONCRETE
1695.6	35.57			849.1 TON	829.55 TON	20.95 TON		

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

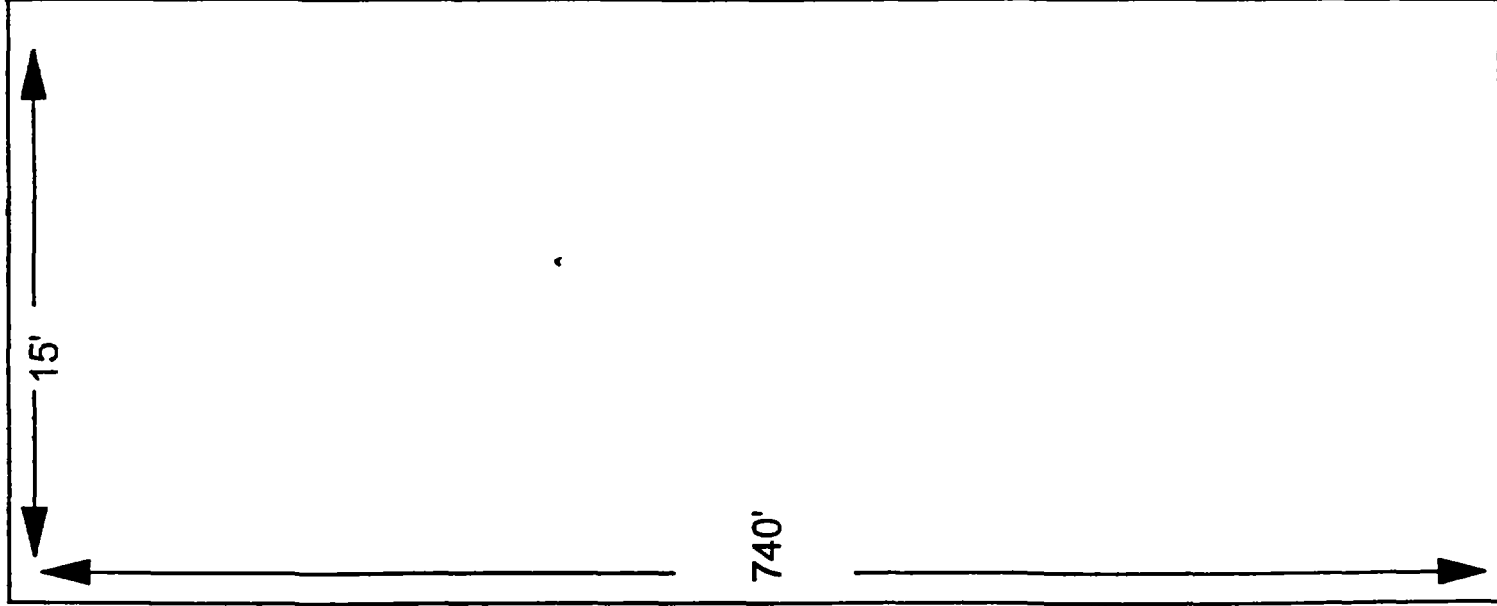
PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: ALLEY2

SAMPLE NUMBER	XRF RESULT	ASC RESULT
SA2		
-100A	775	3'CAP
-101A	443	13.8
-102	243	138
-103	289	359
-104	118	46.4
-105	60	60.3
-106	103	96.6
-107A	531	3'CAP
-108	338	235
-109A	566	3'CAP
-110	114	132
-111A	371	295
-112	109	88.2
113	346	370
114	202	238
115	178	140
116	204	160
117	172	94.8
118	334	271
119	328	373
120	256	161
121	167	124
122	492	3'CAP
123	506	3'CAP
124	680	3'CAP
125	252	154
126	265	191
127	297	211
128	584	3'CAP
129	276	180



ALLEY 2

CROSSROADS
BROWN

DRAWN BY: AS
4/25/95

Alley 7

Action Date: 7/6/95

Loadout: 7/6/95

Restoration Begins: 8/1/95

Restoration Completed: 8/3/95

*Visual contamination was excavated yielding an estimated 664.11 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 0.29 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 36 inches for this property.

*Problems incurred:

Had 2 days that were rained out. Had an incident with a local man George Cannon who had been drinking. Some relatives of the gentleman got him out of our way.

*Equipment utilized during excavation:

*444E-JD loader

*Roller

*17K generator

*TL26 Loader

*Komatsu D-3 Dozer

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 7

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
WASTE	WASTE							
664.11	0.29			634.54	161.11	100.56		

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

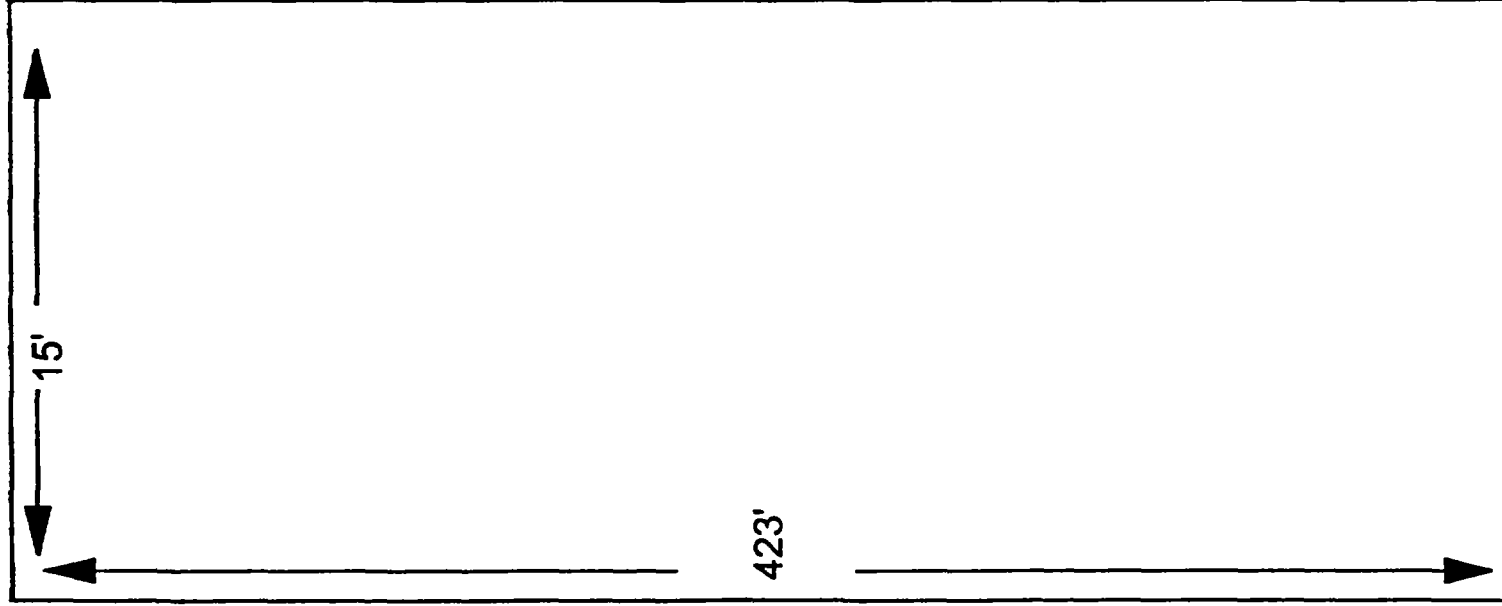
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: ALLEY7

SAMPLE	XRF	ASC
NUMBER	RESULT	RESULT

SA7

[illegible]



ALLEY 7

CROSSROADS
SELB & LINE

DRAWN BY: AS
4/25/95

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Action Date: 7-13-95

Loadout: 7-13-95

Restoration Begins: 7-27-95

Restoration Completed: 8-19-95

*An excavation depth of 3 feet was the average for the yard

*The excavation of hazardous waste yielded 777.15 cubic yards and the excavation of special waste yielded no cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM cut a cable line that needed to be repaired.

*OHM hit a phone line that needed to be repaired

*Equipment utilized during excavation:

*TL26

*Roller

*JD Loader

*JD Dozer

*17KW Generator

*Subcontractors.

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 14

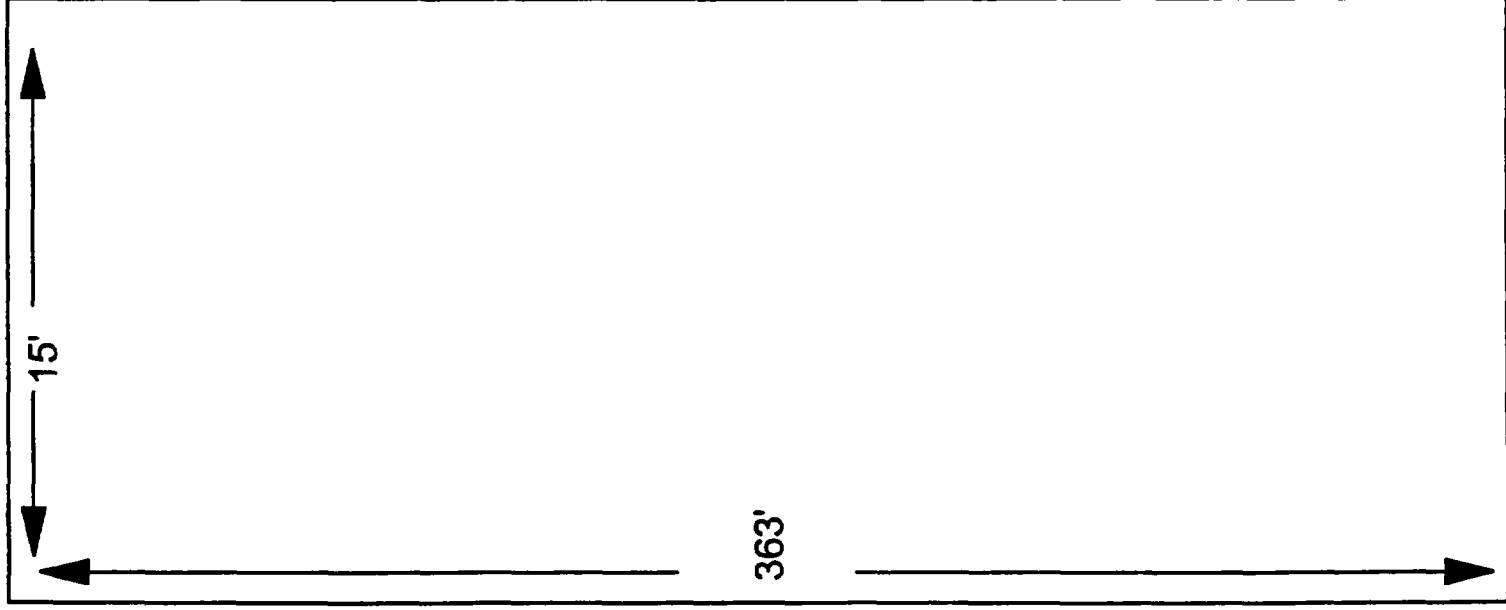
HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
777.15	0			830.33	172.8			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

ADDRESS:[illegible]



ALLEY 14

CROSSROADS
SELB & LINE

DRAWN BY: AS
4/25/95

1

2

3

Alley 18

Action Date:8/26/95

Loadout:9/9/95

Restoration Begins:9/20/95

Restoration Completed:9/22/95

*Visual contamination was excavated yielding an estimated 791.28 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 8.36 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 30 inches for this property.

*Problems incurred:

Hit a cable line under some brush. Called cable company who came out right out. OHM found an electrical pole that was about to fall. Called Illinois Power who came out and replaced pole.

*Equipment utilized during excavation:

*444E-JD loader

*Roller

*17K generator

*TL26 Loader

*Komatsu D-3 Dozer

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 18

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
791.28	8.36			380.2	146.45			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

ALLEY 18

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA18	100	444.5	431
	101	52.5	38.4
	102	53.5	63.8
	103	82	13.9
	104	15	29.7
	105	41.5	35.7
	106	106.5	140
	107	32	23.7
	108	50	28.6
	109	143.5	130
	110	378	298
	111	129	149
	112	14	18.3
	113	40	46
	114	27	12.3
	115	59.5	25.9
	116	182	223
	117	90	47.3
	118	81.5	68.7
	119	175.5	184
	120	598	732

3'

Alley 18

Total Dimensions:
15' x 450'

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Action Date:8-10-95

Loadout:8-12-95

Restoration Begins:8-28-95

Restoration Completed:9-7-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 763.02 cubic yards and the excavation of special waste yielded 32.21 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*TL26

*JD Dozer

*17Kw Generator

*JD Loader

*Roller

*Bobcat mini-excavator

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 22

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
763.02	32.21			485.65	220.25			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

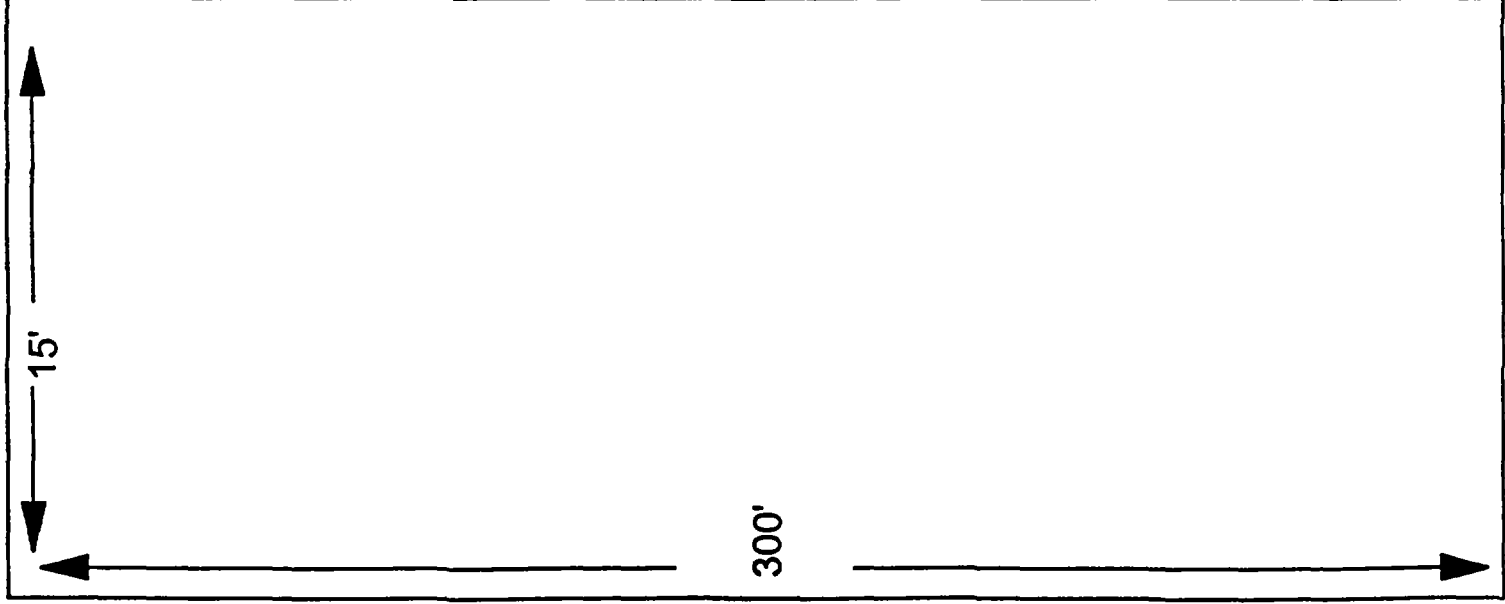
SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

ALLEY 22

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA22	100A	89.5	67
	101	115	109
	102	152	178
	103A	259	274
	104A	266	288
	105A	419.5	3' CAP
	106A	459.5	3' CAP
	107A	146	120
	108	323	338
	109	372	399
	110A	110.5	89



ALLEY 22

CROSSROADS
SELB & LINE

DRAWN BY: AS
4/25/95

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Alley 25

Action Date:8/15/95

Loadout:8/15/95

Restoration Begins:8/30/95

Restoration Completed:9/7/95

***Visual contamination was excavated yielding an estimated 1243.44 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 27.26 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 36 inches for this property.**

***Problems incurred: OHM added extension on exhaust of dozer to keep fumes/smoke away from operator. Unmarked gas line was hit. Called gas company, confirmed no damage was done. While excavating close to a foundation, OHM noticed cracks that may cause water damage. OHM with owners permission tarped the area to prevent future problems that may be blamed on OHM. Owner of 529 Meredocia had concern for water in alley after laundry had been done but told OHM foreman he was having no problem with sewer at this time.**

Equipment used :

- *Hertz JD 490 hoe
- *TL26 Resco backhoe
- *Komatsu dozer

*Subcontractors

- *AWS
 - hauling hazardous and special waste
- *Grantham
 - hauling stone
- *WMI
 - landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 25

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
1243.44	27.26			832.25	283.55			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

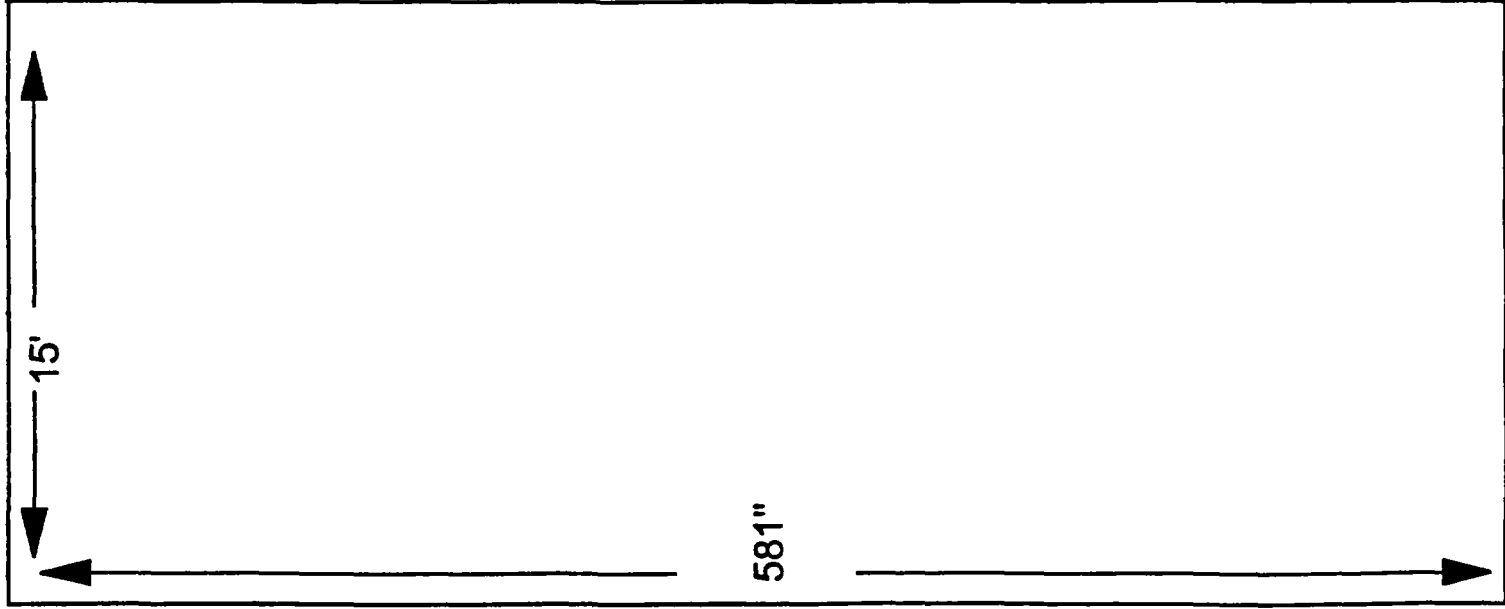
FINAL VERIFICATION RESULTS FOR:

ALLEY 25

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA25	100	89	158
	101	151	216
	102	267.5	382
	103	94.5	93.3
	104	58	35.1
	105	27.5	20.2
	106	14.5	23.3
	107	36	36
	108	358	522
	109	305.5	851
	110	330	319
	111	157	425
	112	197.5	226
	113	266.5	278
	114	283	298
	115	529.5	616
	116	957.5	1110
	117	1696.5	2060
	118	1583	1940
	119	654.5	1600
	120	124.5	99

3'
3'

3'
3'
3'
3'



ALLEY 25

CROSSROADS
ALLEN &
MADISON

DRAWN BY: AS
4/25/95

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ALLEY 30

Action Date:9/13/95

Loadout:9/13/95

Restoration Begins:9/22/95

Restoration Completed:9/27/95

*Visual contamination was excavated yielding an estimated 3574.89 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 4.67 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 3 foot the entire length of the alley.

*Problems incurred:

*OHM broke an unmarked sewer line with a dozer and had to replace it.

*Due to large sections of slag material in alley the digging was slow. Also the slag was responsible for damage to two dozers while attempting to push the material. This caused OHM to bring in an excavator and dig the alley rather than push the material.

*A large gas line ran the length of the alley causing a considerable amount of hand excavation.

*The alley has a manhole in the middle of the alley which small equipment and hand digging were used to excavate around.

*The alley was in a heavy traffic area, this slowed truck turn around time and extra people needed to be used as spotters for the trucks.

*Equipment utilized during excavation:

*444E-JD loader

*Komatsu-D3 dozer

*17K generator

*550 Dozer

*Roller

*Bobcat-Excavator

*TL26 Loader

*PC-120 Excavator

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 30

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
3574.89	4.67			1429.7	359.8			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

ALLEY 30

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA30A	100	195	128
	101	516.5	469
	102	406	382
	103	299	338
	104	492	396
	105	323	303
	106	485	344
	107	572	619
	108	226	229
	109	417.5	428
	110	124.5	155
SA30B	111	380	460
	100	3517	3320
	101	1560	2080
	102	2344	2040
	103	1898	2090
	104	1048	1510
	105	51	39.5
	106	9	13.2
	107	10	21.6
	108	32	11.5
	109	24	23.3
	110	25.5	12.9
	111	30	17.8
	112	52	46.3
	113	64	59
	114	71.5	76.7
	115	211	251
	116	46.5	69.3
	117	15	12.8
	118	51.5	28.3
	119	54.5	24.1

3'

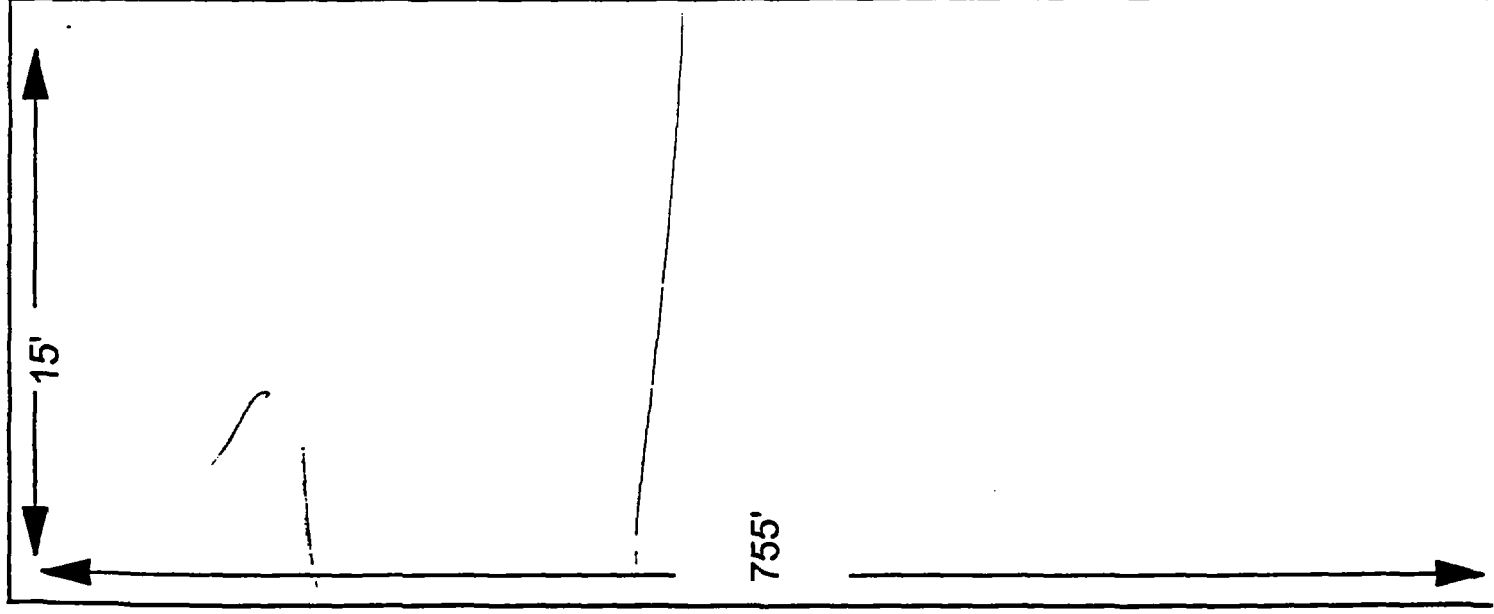
3'

3'

3'

3'

3'



ALLEY 30

CROSSROADS
JACKSON &
BISSELL

DRAWN BY: AS
4/25/95

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Alley 30.5

Action Date: 11/14/95

Loadout: 11/14/95

Restoration Begins: 5/29/96

Restoration Completed: 5/29/96

*Visual contamination was excavated yielding an estimated 197.82 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 0.0 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 36 inches for this property.

*Problems incurred:

None

*Equipment utilized during excavation:

*X331 bobcat

*JD 444 loader

*17K generator

*TL26 Loader

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

ALLEY 30.5

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
197.82	0	6	59.61	0	0		SEED	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

Alley 30.5-

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

Alley 30.5 had no verification sampling done due to the fact that the lot was remediated to a 3 foot depth which per the USEPA is the cap limit.

Alley 30.5

Total Dimensions:

50' x 50'

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ALLEY 36

Action Date: 5/31/95

Loadout: 6/23/95

Restoration Begins: 7/6/95

Restoration Completed: 7/6/95

***Visual contamination was excavated yielding an estimated 211.95 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of .58 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 8 inches the entire length of the alley.**

***Problems incurred:**

***None**

***Equipment utilized during excavation:**

***444E-JD loader**

***Roller**

***17K generator**

***TL26 Loader**

***550 Dozer**

***PC-120 Excavator**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone

***WMI**

-landfill

***This site according to the dates took a considerable amount of time to do. However, the amount of time to do the actual work only took four days. The rest of the time was either spent pumping water from other ongoing sites or periods of no work due to inclement weather.**

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 36

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
211.95	0.58			160.5	46.95	14.07		

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

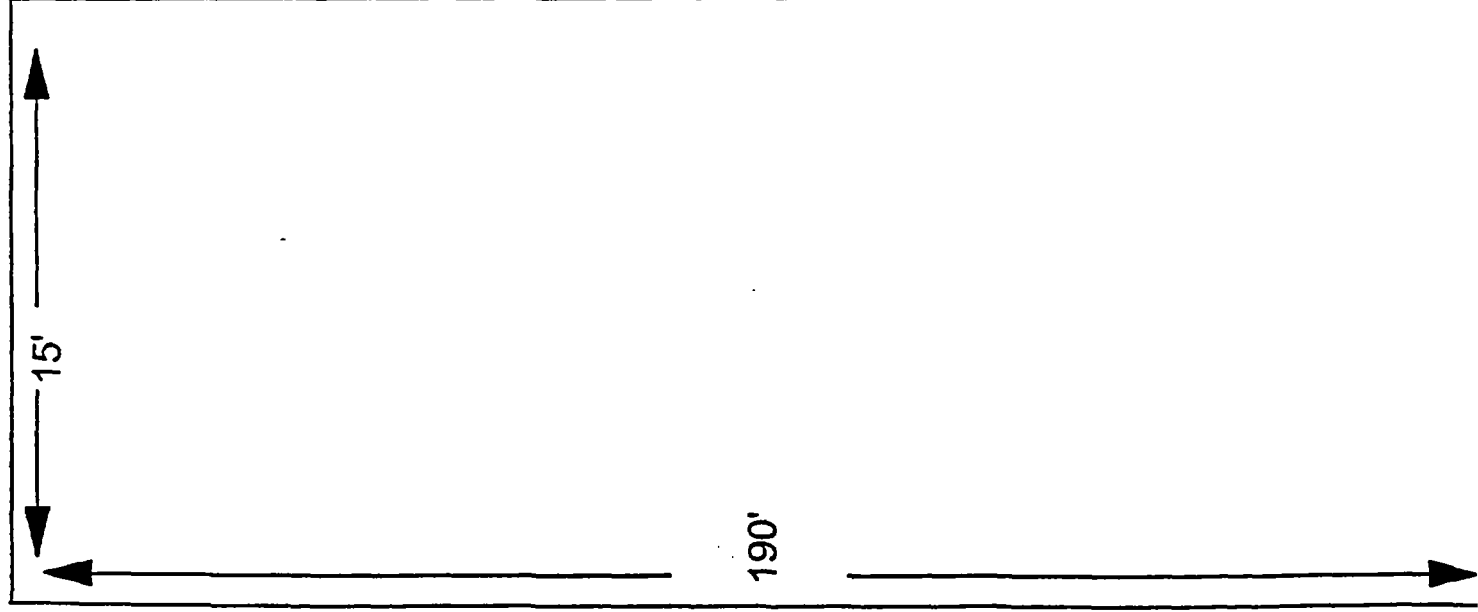
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

ALLEY 36

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA36	100	305.5	243
	101	ND	14.7
	102	16	24.8
	103	ND	13.6
	104	9.5	8.44
	105A	*	10.3
	106	180.5	146

***NO RESULT DUE TO ABSENCE OF CHEMIST**



ALLEY 36

CROSSROADS
MCKINELEY

DRAWN BY: AS
4/25/95

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Action Date: 6-24-95

Loadout: 6-25-95

Restoration Begins: 7-6-95

Restoration Completed: 7-8-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 494.55 cubic yards and the excavation of special waste yielded 18.76 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*TL26

*444 JD Loader

*17Kw Generator

*550 JD Dozer

*Roller

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 39

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
WASTE	WASTE							
494.55	18.76			292.3	98.05			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

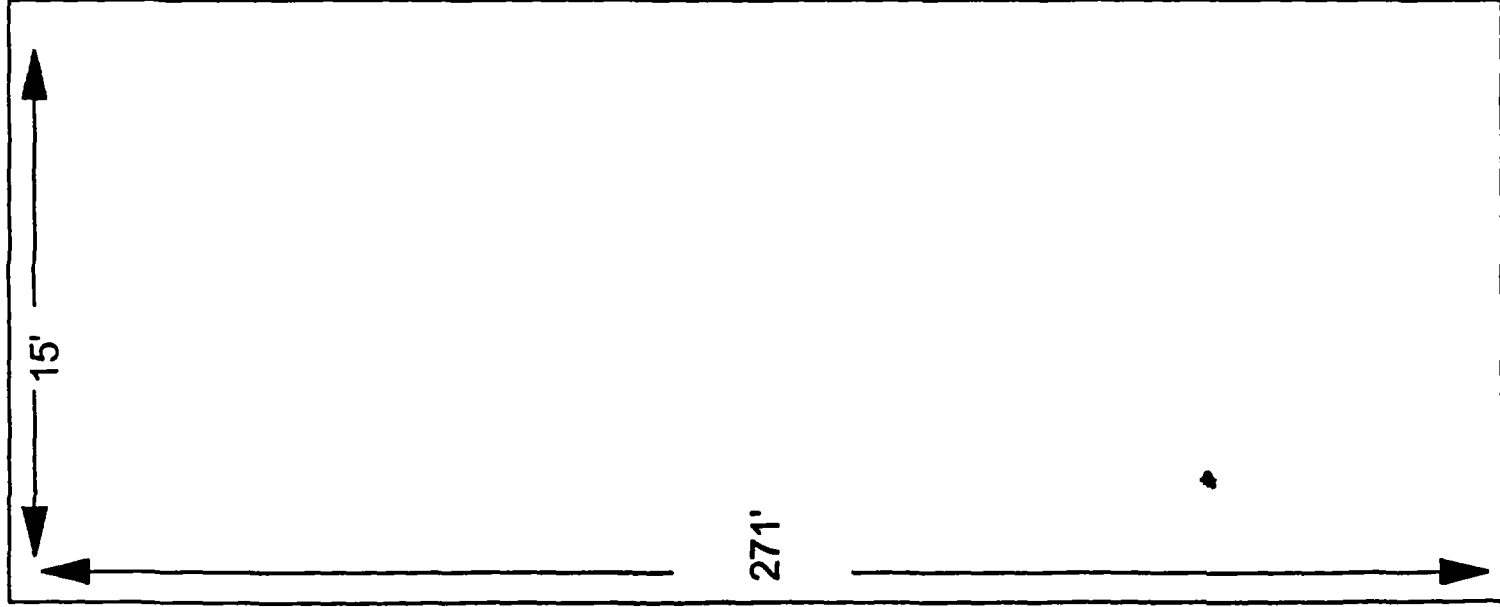
OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

ALLEY 39

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SA39	100	26.5	27.8
	101	7	8.47
	102	17	8.34
	103	29	11
	104	51	35.8
	105	206	164
	106	54	38.6
	107	69.5	32.4
	108	135	74.4
	109	*	63.8
	110	*	73.8

*NO RESULT DUE TO ABSENCE OF CHEMIST



ALLEY 39

CROSSROADS
BROWN

DRAWN BY: AS
4/25/95

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Action Date:4-26-95

Loadout:4-27-95

Restoration Begins:5-19-95

Restoration Completed:5-25-95

*An excavation depth of 24 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 339.12 cubic yards and the excavation of special waste yielded 95.06 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*Weather

*Equipment utilized during excavation:

*TL26

*JD Dozer

*17Kw Generator

*JD Loader

*Roller

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 54

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
339.12	95.06			389.3	240.05			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR ALLEY 54

SAMPLE #	RESULT MG/KG
SA54-001B	285
SA54-002	182
SA54-003	73
SA54-004	25.6
SA54-005	257
SA54-006	53.6
SA54-007	45
SA54-008	210
SA54-009	132
SA54-010A	285
SA54-011B	188

SA54-001B	15'	XRF308- ASC- 285
SA54-002 ASC- 182		xrf-145.5
SA54-003		XRF-60.9 ASC- 73
SA54-004		XRF-16.9 ASC- 25.6
SA54-005 ASC-257		XRF-217
237'		
SA54-006		XRF-38.05 ASC- 53.6
sa54-007		xrf-40.25 ASC-45
SA54-008		XRF-202.5 ASC-210
SA54-009		XRF-136 ASC-132
SA54-010A		XRF-281.5 ASC-285
SA54-011B ASC-188		XRF-178.5

KERR ST

ALLEY 54

CROSSROADS
KERR

DRAWN BY: AS
4/25/95

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Alley 55

Action Date: 4/26/95

Loadout: 4/29/95

Restoration Begins: 5/3/95

Restoration Completed: 5/19/95

*Visual contamination was excavated yielding an estimated 438.03 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 15.05 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 24 inches for this property.

*Problems incurred:

While excavating found 10" hole that ran straight down. It had been filled with clay. Homeowner complained to city inspector our equipment was parked on her property. Inspector came out, saw where we were parked and said everything was ok.

*Equipment utilized during excavation:

*444E-JD loader

*Roller

*17K generator

*TL26 Loader

*Komatsu D-3 Dozer

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 55

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
438.03	15.01			176	179.6			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

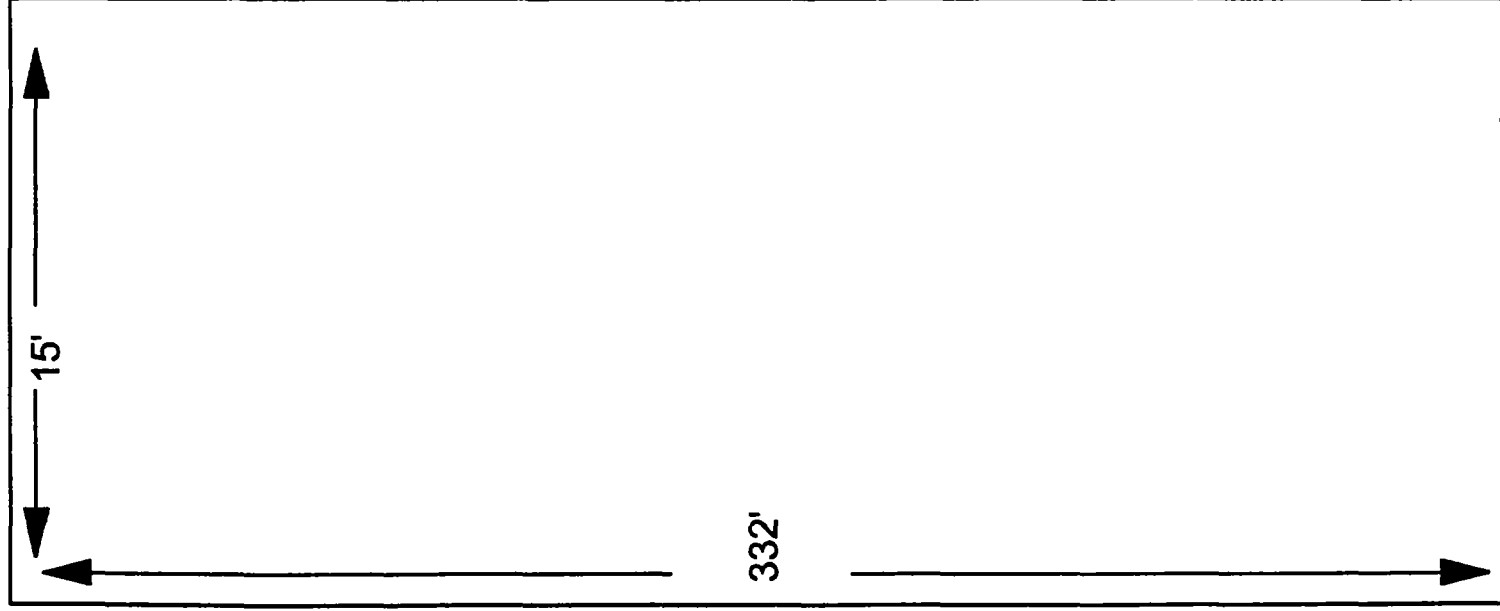
PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR ALLEY 55

SAMPLE #	RESULT MG/KG
SA55-100	132
SA55-101	11.6
SA55-102	12
SA55-103	79.1
SA55-104	436
SA55-105	202
SA55-106	256
SA55-107	27.9
SA55-108	86
SA55-109	20.9
SA55-110	163
SA55-111	73.1
SA55-112A	310



ALLEY 55

CROSSROADS
2ND & 3RD

DRAWN BY: AS
4/25/95

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Alley 57

Action Date: 4/26/95

Loadout: 5/3/95

Restoration Begins: 5/9/95

Restoration Completed: 5/19/95

*Visual contamination was excavated yielding an estimated 438.03 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 29.57 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 24 inches for this property.

*Problems incurred:

*OHM crew found bones in excavation area the police were called to look over the finding. Police told OHM that it was okay to continue working.

*Equipment utilized during excavation:

*444E-JD loader

*Roller

*17K generator

*TL26 Loader

*Komatsu D-3 Dozer

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

OHM CORPORATION
 GRANITE CITY, IL
 PROJECT 16473

QUANTITY SUMMARY FOR ALLEY 57

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
438.03	29.57			310.05	73.15			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR ALLEY 57

SAMPLE #	RESULT MG/KG
SA57-100	361
SA57-101	240
SA57-102	320
SA57-103A	208
SA57-104A	210
SA57-105	15.1
SA57-106	12.3
SA57-107	71.6
SA57-108	57.8
SA57-109	38.9
SA57-110	188
SA57-111	189
SA57-112	158

15'

SA57-100 XRF-330 ASC-361	
SA57-101 XRF-283 ASC-240	
SA57-102 XRF-268.5 ASC-320-	
SA57-103A XRF-217 ASC-208	
SA57-104A ASC-210	XRF166
SA57-105	XRF-4.15 ASC-15.1
SA57-106	XRF-13.9 ASC-12.3
SA57-107	XRF-52 ASC-71.6
SA57-108	XRF-52.3 ASC-57.8
SA57-109	XRF-31.4 ASC-38.9
SA57-110	XRF-165 ASC-188
SA57-111	XRF-146.5 ASC-189
SA57-112	XRF-42 ASC-158

252

ALLEY 57

CROSSROADS
2ND & 3RD

DRAWN BY: AS
5/3/95

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Action Date:5-4-95

Loadout:5-5-95

Restoration Begins:5-15-95

Restoration Completed:5-22-95

*An excavation depth of 24 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 494.55 cubic yards and the excavation of special waste yielded 23.7 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*TL26

*JD Dozer

*17Kw Generator

*JD Loader

*Roller

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

ALLEY 66

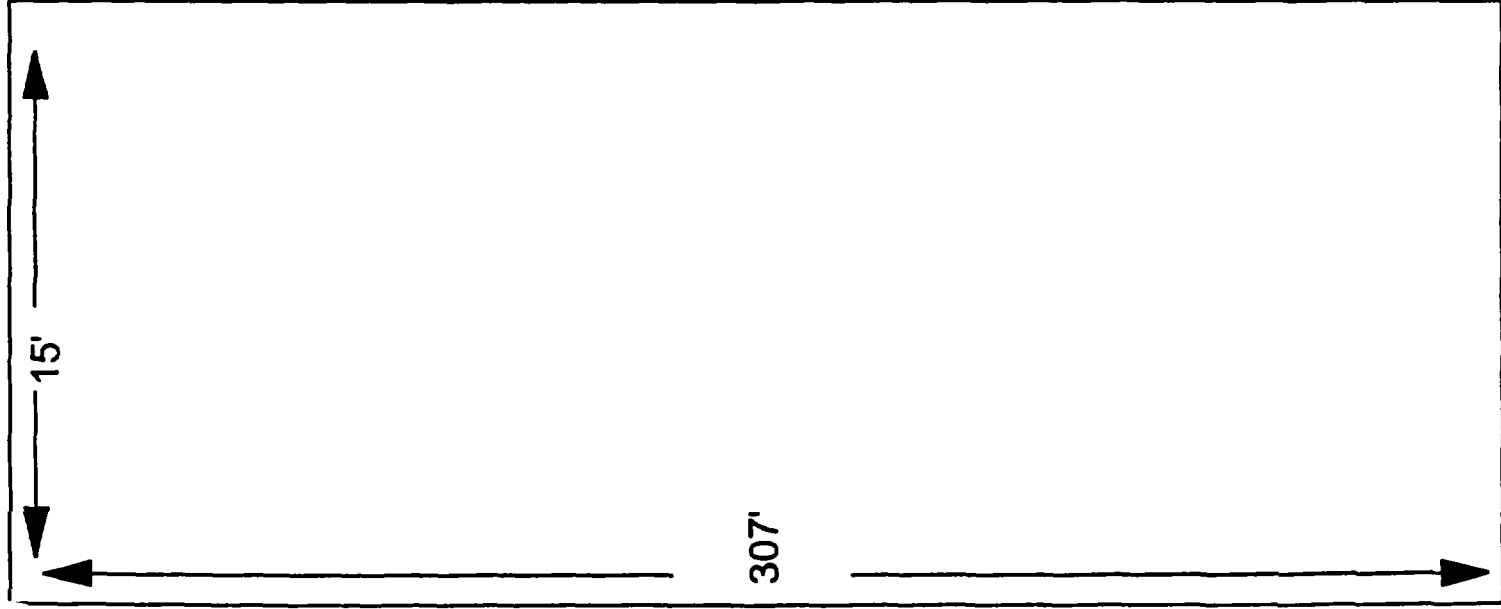
HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY	SOD/SEED	CONCRETE
WASTE	WASTE					STONE		
197.82	23.7			350.85 TON	255.7 TON			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

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ALLEY 66

CROSSROADS
2ND &
HAMPDEN

DRAWN BY: AS
4/25/95

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Action Date: 5-5-95

Loadout: 5-31-95

Restoration Begins: 6-5-95

Restoration Completed: 6-12-95

*An excavation depth of 24 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 593.46 cubic yards and the excavation of special waste yielded 0 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*TL26

*JD Dozer

*17Kw Generator

*JD Loader

*Roller

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 69

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
593.46				343.4	138.45			

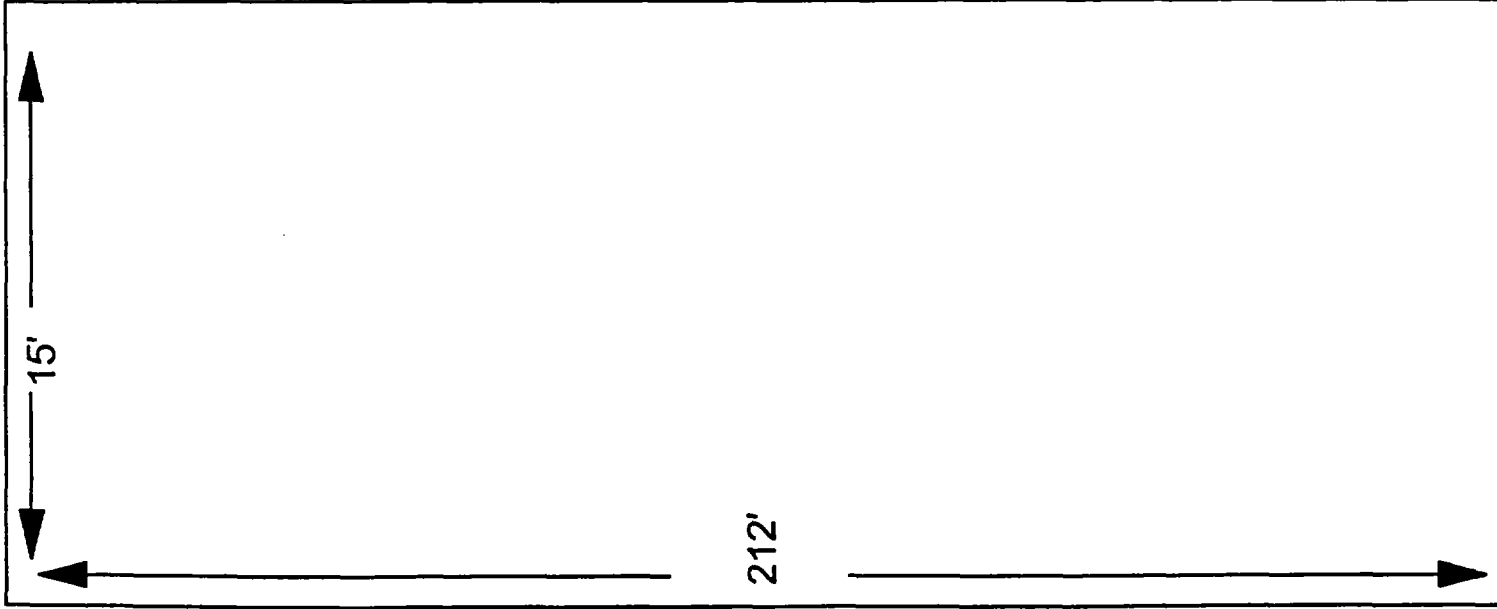
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

ADDRESS: ALLEY69

[illegible]



ALLEY 69

CROSSROADS
2ND &
ALLEY 70

DRAWN BY: AS
4/25/95

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Action Date:5-4-95

Loadout:5-11-95

Restoration Begins:6-5-95

Restoration Completed:6-8-95

*An excavation depth of 3 feet was the average for the yard

*The excavation of hazardous waste yielded 670.24 cubic yards and the excavation of special waste yielded 1.16 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM cut a cable line that needed to be repaired.

*Equipment utilized during excavation:

*TL26

*Roller

*JD Loader

*JD Dozer

*17KW Generator

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: ALLEY 70

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
WASTE	WASTE							
678.24	1.16			368.75	94.45			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

7



SA70-112	XRF-87 ASC-87.32	15'
SA70-111	XRF-75.35 ASC-58.8	
SA70-110	XRF-156.5 ASC-324	
SA70-109A	XRF-36 ASC-45.5	
SA70-108	XRF-135 ASC-187	
SA70-107	XRF-68.55 ASC-79.4	
SA70-106	XRF-316.5 ASC-435	
SA70-105 ASC-475	XRF-190.5	
SA70-104A	XRF- 38 ASC-69.8	
SA70-103 ASC-179	XRF-188	
SA70-102 ASC-138	XRF-81.7	
SA70-101 ASC-209	XRF-147	
SA70-100A	XRF-5.5 ASC-10	2ND ST

331'

ALLEY 70

CROSSROADS
2ND & 3RD

DRAWN BY: AS
4/25/95

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Harrison-Terry Alley

Action Date: 10-11-95

Loadout: 10-11-95

Restoration Begins: 10-19-95

Restoration Completed: 10-20-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 678.24 cubic yards and the excavation of special waste yielded .79 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*TL26

*444 JD Loader

*17Kw Generator

*550 JD Dozer

*Roller

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

TERRY-HARRISON ALLEY

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
391.89	0.79			499.75	125.9			

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2369	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

HARRISON-TERRY ALLE

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
HNT	100	51.5	12.3
	101	22	12.8
	102	24	12.8
	103	23.5	14.5
	104	10.2	18
	105	30.5	11.7
	106	29	15.4
	107	29.5	20.4
	108	66.5	43.2
	109	89.5	96.2
	110	25.5	15.1
	111	36.5	44.5

Terry-Harrison Alley

**Total Dimensions:
10' x 310'**

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Hill-Terry Alley

Action Date: 10-4-95

Loadout: 10-4-95

Restoration Begins: 10-16-95

Restoration Completed: 10-18-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 818.54 cubic yards and the excavation of special waste yielded 0 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM had to replace a drain for a washing machine that ran across the alley.

*Equipment utilized during excavation:

*TL26

*JD Dozer

*17Kw Generator

*JD Loader

*Roller

*Bobcat mini-excavator

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

HILL-TERRY ALLEY

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY	SOD/SEED	CONCRETE
WASTE	WASTE					STONE		
819.54				580.55 TON	122.45 TON			

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

HILL-TERRY ALLEY

3'
3'
3'
3'
3'
3'
3'
3'
3'
3'
3'
3'

HILL

375'

TERRY

HI-T 200 BLOCK

TOTAL DIMENSIONS
375'

DRAWN BY CB
8/18/95

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108B Carver

Action Date:8/21/95

Loadout:8/21/95

Restoration Begins:9/6/95

Restoration Completed:9/12/95

*Visual contamination was excavated yielding an estimated 1229.31 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 24.38 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 2 foot the entire area of the lot.

*Problems incurred:

*None.

*Equipment utilized during excavation:

*Bobcat-Excavator

*17K generator

*TL26 Loader

*2" pump

*PC-120 Excavator

*JD Tractor

*Roller

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM Corporation
Granite City, IL
Project 16473

QUANTITY SUMMARY FOR 108B Carver

Hazardous	Special	Backfill	Topsoil	CA-6	CA-7	Sand	Sod/Seed	Concrete
cu yds	cu yd	Loads	cu yd	ton	ton			
1229.31	24.38	79	240.96		14.45		seed	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

SITE #	SAMPLE PREFIX	SAMPLE POINT	DESCRIPTION	TOTAL PB MG/KG*
108 CARVER	P108C	004F	0'-6" FRONT	2318
	P108C	004B	0'-6" BACK	121
	P108C	005F	6'-12" FRONT	590
	P108C	005B	6'-12" BACK	139
	P108C	006F	12'-18" FRONT	82
	P108C	006B	12'-18" BACK	29
311 TERRY	P311T	004F	0'-6" FRONT	405
	P311T	004B	0'-6" BACK	1763
	P311T	005F	6'-12" FRONT	208
	P311T	005B	6'-12" BACK	837
	P311T	006F	12'-18" FRONT	88
	P311T	006B	12'-18" BACK	381
100 HILL	P100HI	001F	0'-6" FRONT	107
	P100HI	001B	0'-6" BACK	2167
	P100HI	002F	6'-12" FRONT	68
	P100HI	002B	6'-12" BACK	1112
	P100HI	003F	12'-18" FRONT	116
	P100HI	003B	12'-18" BACK	1917
218 HARRISON	P218HN	004F	0'-6" FRONT	944
	P218HN	004B	0'-6" BACK	417
	P218HN	005F	6'-12" FRONT	517
	P218HN	005B	6'-12" BACK	186
	P218HN	006F	12'-18" FRONT	1064
	P218HN	006B	12'-18" BACK	101
101 HARRISON	P101HN	004F	0'-6" FRONT	230
	P101HN	004B	0'-6" BACK	674
	P101HN	005F	6'-12" FRONT	109
	P101HN	005B	6'-12" BACK	1024
	P101HN	006F	12'-18" FRONT	89
	P101HN	006B	12'-18" BACK	2402
211 HARRISON	P211HN	004F	0'-6" FRONT	1714
	P211HN	004B	0'-6" BACK	124
	P211HN	005F	6'-12" FRONT	1229
	P211HN	005B	6'-12" BACK	1198
	P211HN	006F	12'-18" FRONT	325
	P211HN	006B	12'-18" BACK	607
206 BOOKER	P206B	004F	0'-6" FRONT	799
	P206B	004B	0'-6" BACK	659
	P206B	005F	6'-12" FRONT	73
	P206B	005B	6'-12" BACK	82
	P206B	006F	12'-18" FRONT	40.7
	P206B	006B	12'-18" BACK	24
224 CARVER	P224C	004F	0'-6" FRONT	620
	P224C	004B	0'-6" BACK	362
	P224C	005F	6'-12" FRONT	45
	P224C	005B	6'-12" BACK	404
	P224C	006F	12'-18" FRONT	115
	P224C	006B	12'-18" BACK	218
306 HARRISON	P306HN	004F	0'-6" FRONT	63
	P306HN	004B	0'-6" BACK	178
	P306HN	005F	6'-12" FRONT	44
	P306HN	005B	6'-12" BACK	266
	P306HN	006F	12'-18" FRONT	110
	P306HN	006B	12'-18" BACK	173
209 HARRISON	P209HN	004F	0'-6" FRONT	602
	P209HN	004B	0'-6" BACK	551
	P209HN	005F	6'-12" FRONT	198
	P209HN	005B	6'-12" BACK	463
	P209HN	006F	12'-18" FRONT	134
	P209HN	006B	12'-18" BACK	109

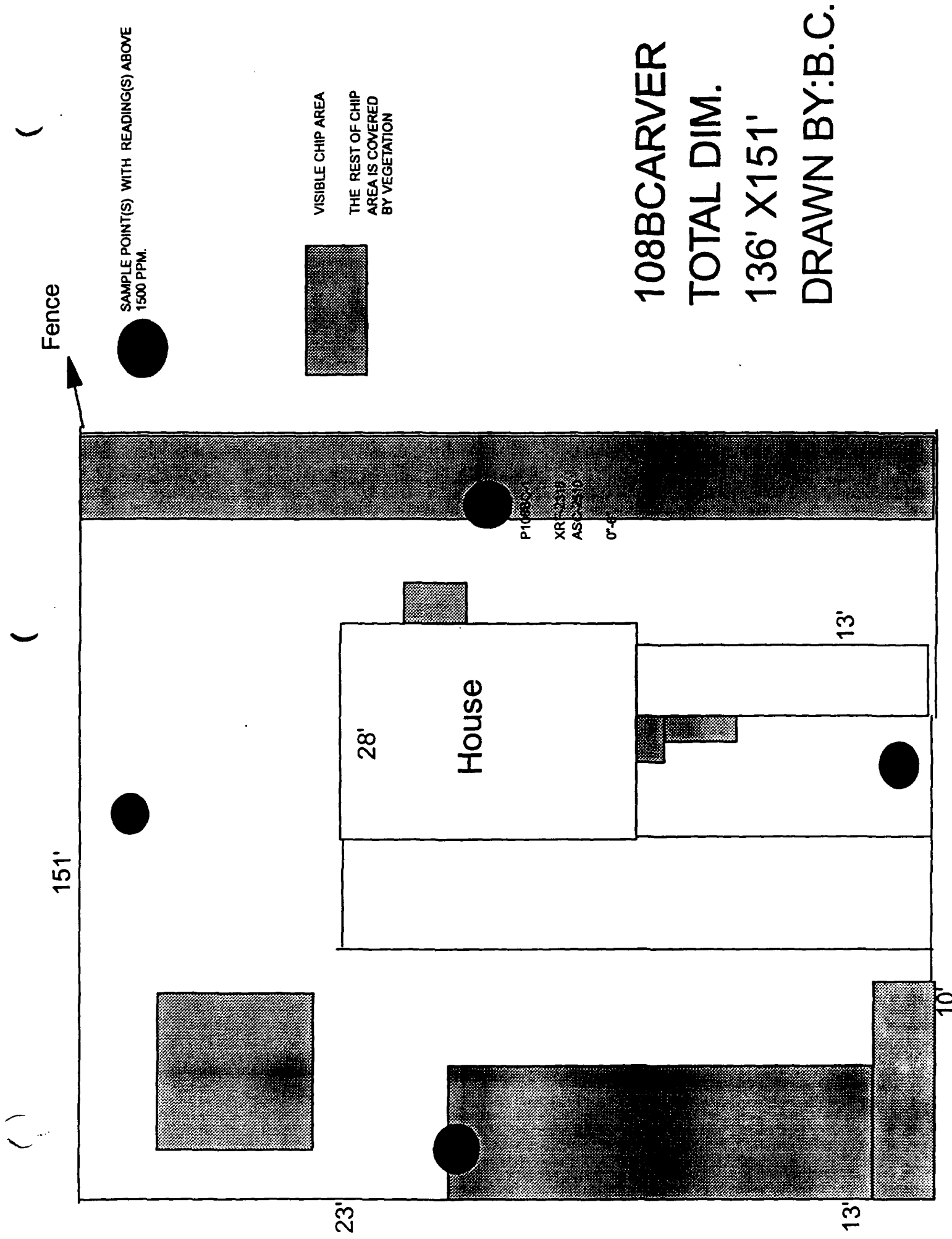
*ALL SAMPLE RESULTS ARE FROM XRF ANALYSIS NOT LAB

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

108B CARVER

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S108BC	100	47	26
	101	29	29.9
	102	99	11
	103	33	33
	104	33.3	44.4
	105	51	43.1
	106	61	59.4
	107	32	28.4
	108	52	75.1
	109	40	42
	110	14	40.5
	112	25	20.6
	113	18	12.8
	114	27.5	11.1
	115	10.5	11.2
	116	33.5	22.6
	117	44.5	60.2
	118	147.5	154



108BCARVER
TOTAL DIM.
136' X 151'
DRAWN BY: B.C.

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114 Carver

Action Date:9/12/95

Loadout:9/12/95

Restoration Begins:9/18/95

Restoration Completed:9/27/95

*Visual contamination was excavated yielding an estimated 353.25 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 5.51 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 18" the entire area of the lot.

*Problems incurred:

*None.

*Equipment utilized during excavation:

*Bobcat-Excavator

*17K generator

*TL26 Loader

*2" pump

*PC-120 Excavator

*JD Tractor

*Roller

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

114 CARVER

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
353.25	5.51	15 LOADS	0	62.55	58.65		SEED	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1810	0.136			
	P1420ST-8	1688	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<1.00			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

114 CARVER

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S114C	100	318	302
	101	49.5	34.2
	102	345.5	351
	103	108.5	106
	104	92	158
	105	380.5	492
	106	28	23.9
	107	150	135
	108	147	156

VISIBLE CHIP
AREA

THE REST OF
THE CHIPS
WERE
COVERED BY
THE
VEGETATION.

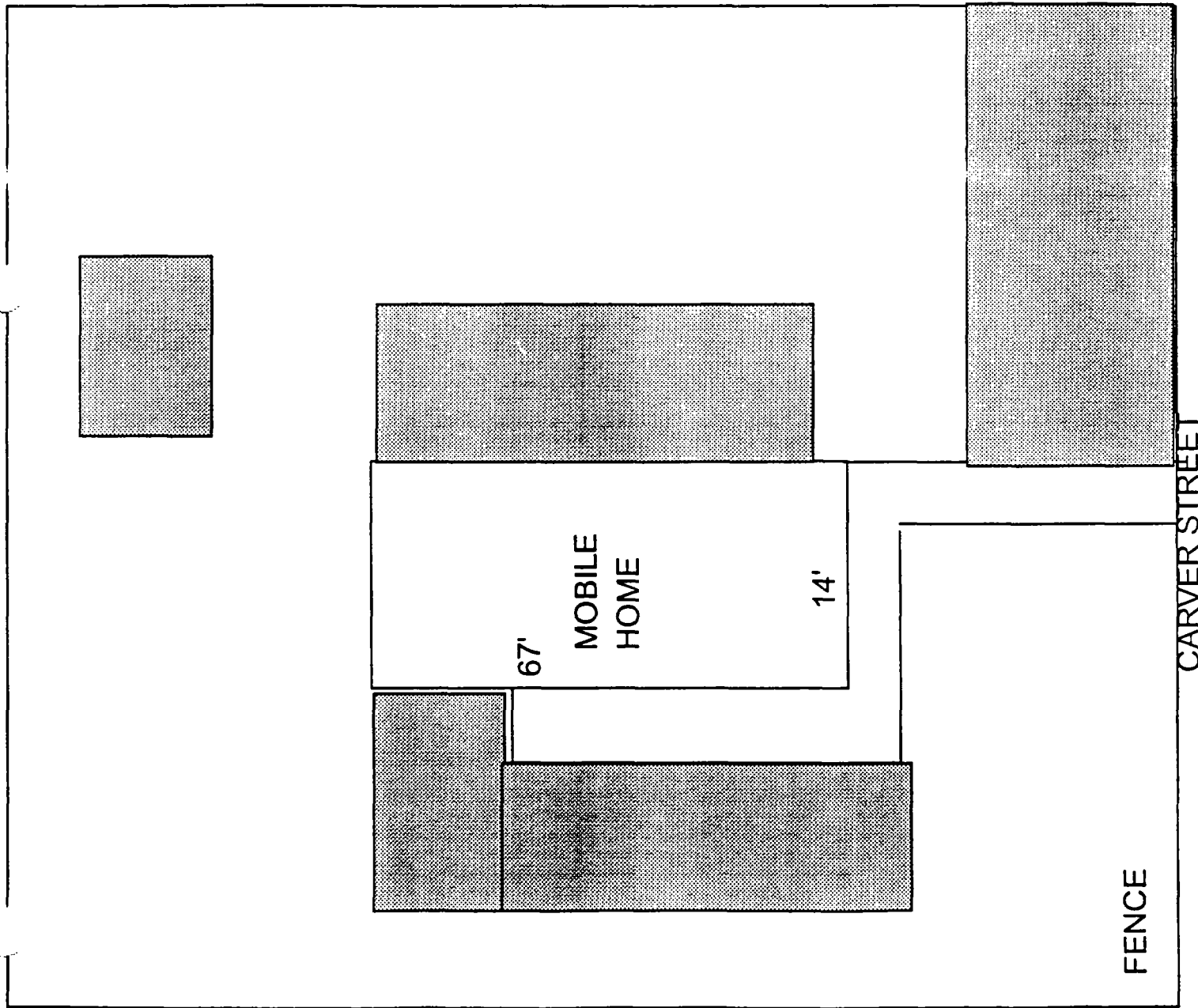
114 CARVER

TOTAL
DIMENSIONS=

50' x 140'

9/13/95

DRAWN BY: AS



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225/27 CARVER

Action Date: 4/4/95

Loadout: 4/5/95

Restoration Begins: 5/12/95

Restoration Completed: 7/14/95

*Visual contamination was excavated yielding an estimated 1059.75 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 32.75 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 30" for this property.

*Problems incurred:

*This property was a double lot and twice the size of a normal hazardous site.

*During excavation of this site a buried septic tank was found after a JD444 loader fell in the septic.

*There was an estimated 13"-15" of rain that fell over a fourteen day period during the time of this property. This lot was part of the drainage for the subdivision there was about 2 1/2 to 3 feet of water on the site. OHM proceeded to pump water off the site but the water continued to drain to the site from the rest of the subdivision. After the water was pumped off work was difficult due to the saturated backfill that was stockpiled on the site. OHM laid out a pad to allow the soil to dry then proceeded to flip the soil over to dry the other side.

*The fence running along the property fell over due to the erosion of the soil during the rain.

*OHM had to pump the homeowners basement due to the excavation area holding water.

*Unmarked sewer lines were found in the backyard.

*Unmarked cable lines were found in the front yard.

*Numerous soft spots were left in the yard due to the rain making work difficult.

*A large problem occurred with the wet ground and backfill causing equipment to get stuck.

*OHM replaced drain line that emptied into the yard and fixed the septic tank.

*Equipment utilized during excavation:

*444E-JD loader

*17K generator

*JBC214 Backhoe

*3" Trash pump

*Roller

*TL26 Loader

*JD490-E Trackhoe

*X331 Excavator

*D31E Dozer
*JD955 Tractor

*2" sub pump

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

225/227 CARVER

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY	SOD/SEED	CONCRETE
WASTE	WASTE					STONE		
1059.75	32.75	121 LOADS	95 TON	148 TON	61.2 TON			

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

PRE-CHARACTERIZATION RESULTS FOR 227 CARVER

P227C-

SAMPLE	XRF	ASC	ASC
POINT	TOTAL PB	TOTAL PB	TCLP PB
001F	*	220	<.100
002F	*	29.2	HOLD
003F	*	HOLD	HOLD
001B	*	10600	208
002B	*	210	HOLD
003B	*	HOLD	HOLD

* MEANS NOT SCREENED ON XRF

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: 225/227 CARVER

SAMPLE NUMBER	XRF RESULT	ASC RESULT
S227C		
-100	250	250
-101	253	360
-102B	64	66.5
-103	45	58.5
-104	98.5	97
-105C	380.5	411
-106	78.6	49.5
-107	154	106
-108	217.5	306
-109	115.5	134
-110	31.75	29.9
-111	57.2	145
-112	54.55	54.5
-113	264	306
-114	371.5	321
-115	79.5	101
-116	345.5	415
-117	170	182
-118	167.5	174
-119	323.5	434
-120	200	194
-121	348	439
-122	56.75	72
-123	232.5	280
-124	99	112
-125	185.5	205
-126	369.5	415
-127A	44.7	40.3
-128	276.5	294
-129	65.45	75
-130	65.1	94.4

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208 Hare

Action Date: 10/31/95

Loadout: 11/1/95

Restoration Begins: 11/16/95

Restoration Completed: 11/17/95

***Visual contamination was excavated yielding an estimated 819.54 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 24.51 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 2 foot the entire area of the lot.**

***Problems incurred:**

***During restoration, OHM drained a drain cleanout and packed rock back in around the clean out.**

***Equipment utilized during excavation:**

***444E- loader**

***Bobcat-Excavator**

***17K generator**

***TL26 Loader**

***JCB Backhoe**

***PC-150 Excavator**

***JD Loader**

***Roller**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone, fill, topsoil

***WMI**

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

208 HARE

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
WASTE	WASTE							
819.54	24.51	26 LOADS	348.66	97.45	41.2		SEED	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

PRE-CHARACTERIZATION RESULTS OF SITES WITH VISIBLE BATTERY CHIPS

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	FIXED LAB TOTAL PB	FIXED LAB TCLP PB	OHM APPROVAL	USACE APPROVAL	EPA APPROVAL
200 HARRISON SAND ROAD #2	P200HN-1	51830	69300	244			
	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211/213 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			
104 ROOSEVELT	P104R-1	7960	8730	2.75			
310 ALLEN	P310A-2	5286.5	7620	6.14			
200 ALLEN	P200A-4	4289	3390	1.39			
108 ROOSEVELT	P108R-4	3033.5	5400	1.84			
207 HILL	P207HI-11	2368.5	2440	1.2			
208 HARE	P208HA-11	5015	3710	1.18			
HARRISON-WATSON ALLE	HN-W-1043	2700	2220	0.534			
1430/32 THIRD	143032TH-1	36					
	143032TH-2	49.5					

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

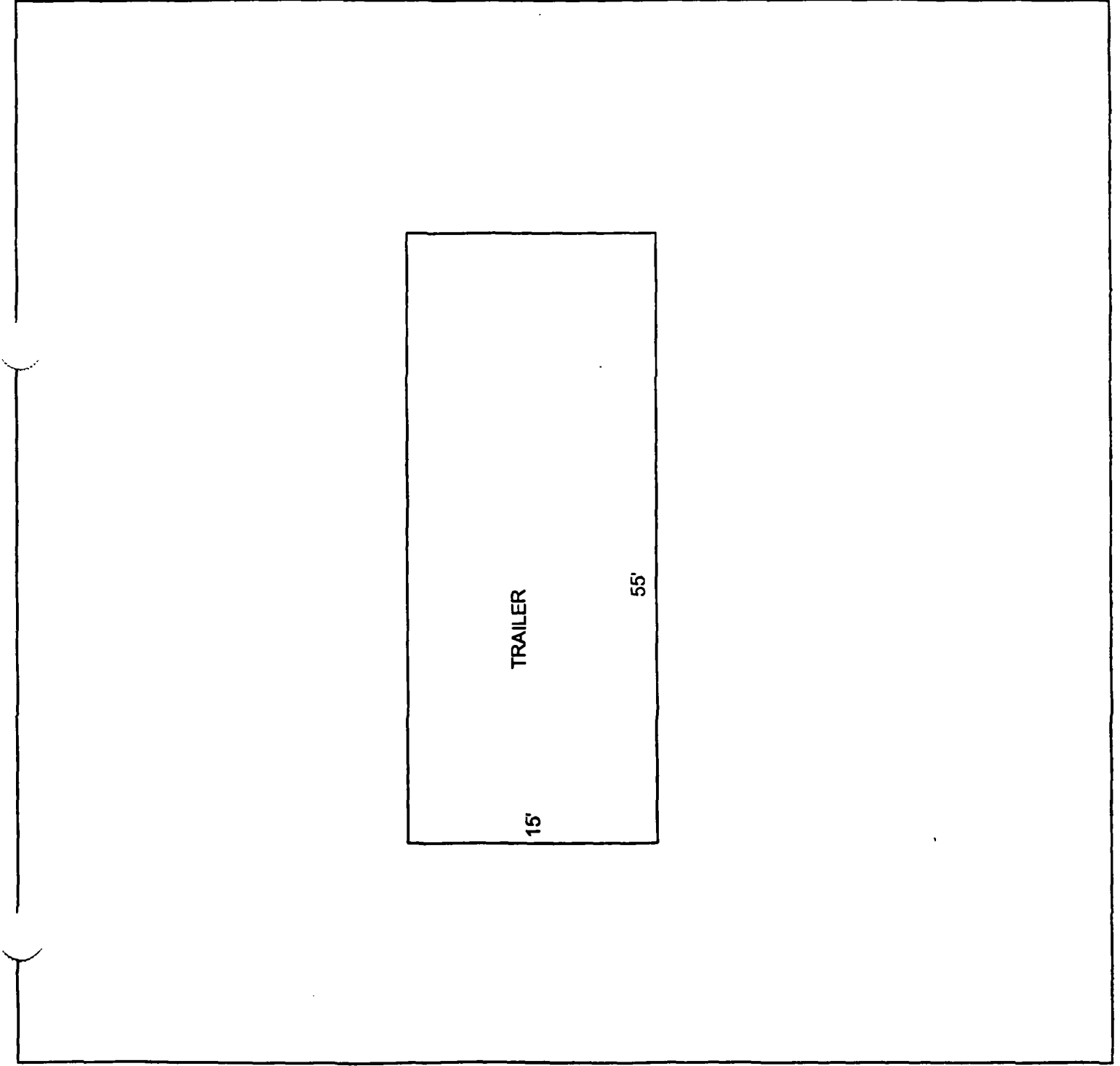
ALL OHM SAMPLES TAKEN AT A DEPTH OF 0'-6"

ALL SITE PRE-CHARACTERIZATION SAMPLES ADHERE TO CDAP

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR: 208 HARE

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S208HA	100	155.5	111
	101A	14	16.1
	102	140	148
	103	52.5	45.7
	104	73.5	60.2
	105	111.5	109
	106	99	56.1
	107	22.5	32.5
	108	176.5	87.5
	109	25	50.7
	110	88	80.5
	111	60	79.8
	112	246	253
	113	26	29.7



208 HARE

TOTAL DIMENSIONS:

100" X 65'

DRAWN BY: AS

NOV. 11 1995

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209 Hare

Action Date:9/25/95
Loadout:9/26/95
Restoration Begins:10/5/95
Restoration Completed:10/14/95

*Visual contamination was excavated yielding an estimated 932.58 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 17.74 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 18" the entire area of the lot.

*Problems incurred:

*While excavating in this yard, debris scraped a gas line putting a pin size hole in the line. The line was immediately repaired by the gas company.

*Equipment utilized during excavation:

*444E- loader	*Bobcat-Excavator
*17K generator	*TL26 Loader
*2" pump	*PC-150 Excavator

*Subcontractors

- *AWS
 - hauling hazardous and special waste
- *Grantham
 - hauling stone, fill, topsoil
- *WMI
 - landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

209 HARE

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
WASTE	WASTE						SEED	
932.58	17.74	78	383.56	245.5	70.2			

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

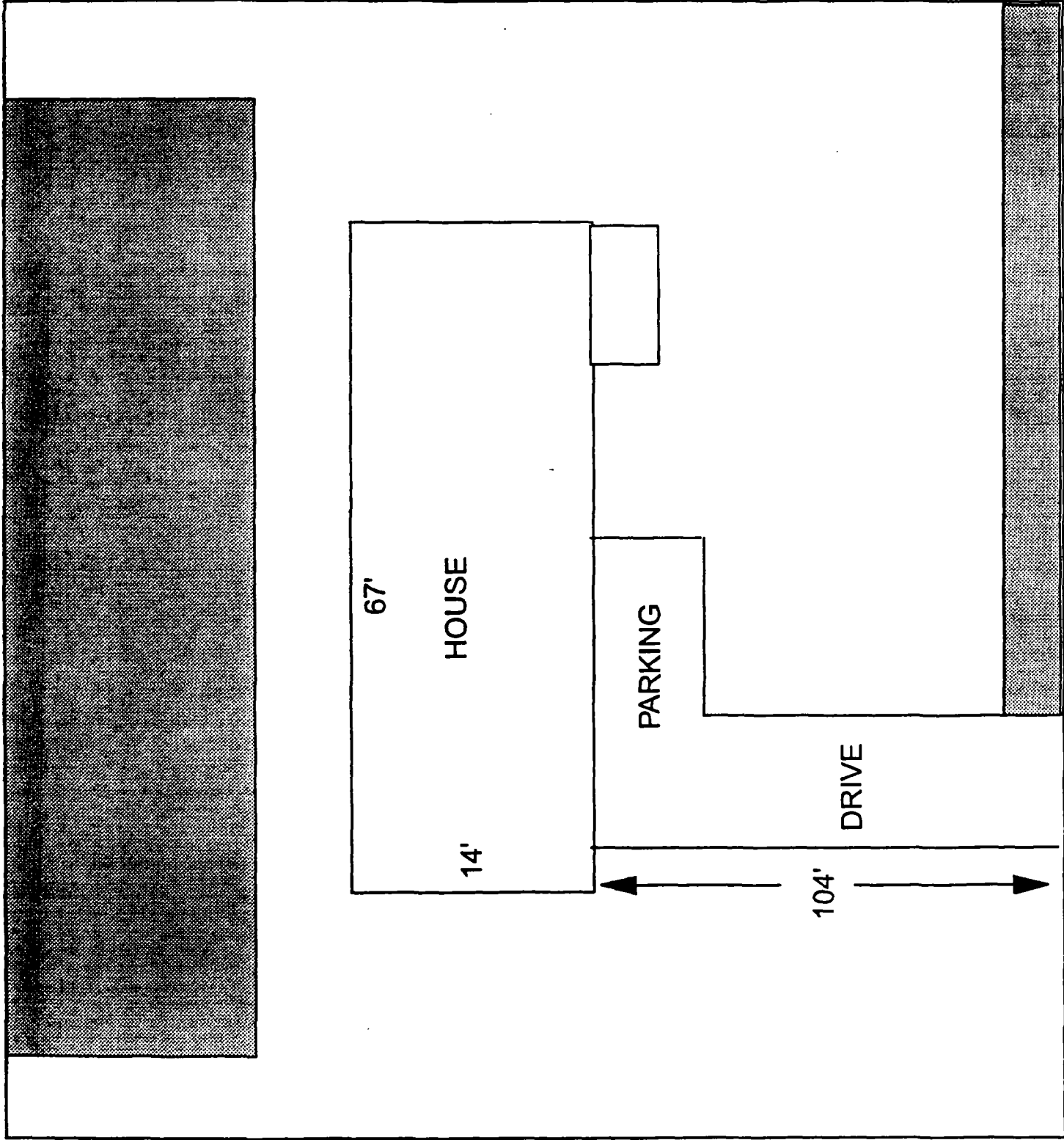
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

209 HARE

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S209HA	100	0	11.9
	101	13	10.4
	102	16	14.3
	103	18.5	10.8
	104	9.5	25.2
	105	69	64.4
	106	55.5	61.2
	107	196	197
	108	183	131
	109	47	65.8
	110	21.5	11.9
	111	0	10.8
	112	24.5	10.4
	113	18.5	9.73
	114	87	51.1
	115	83	62.2
	116	72.5	53.8
	117	19	11.4

105'



AREA OF
VISIBLE
CHIPS



HOUSE

67'

14'

PARKING

DRIVE

104'

209 HARE

105' X 190'

9/20/95

DRAWN BY: AS

NTS

190'

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100 Hill

Action Date: 7/6/95

Loadout: 7/6/95

Restoration Begins: 7/21/95

Restoration Completed: 8/31/95

*Visual contamination was excavated yielding an estimated 593.46 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 14.3 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 20 inches for this property.

*Problems incurred:

OHM broke cable line. Repaired by cable company

*Equipment utilized during excavation:

*X331

*Roller

*17K generator

*TL26 Loader

*PC 150

*JD tractor

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

OHM Corporation
Granite City, IL
Project 16473

QUANTITY SUMMARY FOR 100 HILL

Hazardous	Special	Backfill	Topsoil	CA-6	CA-7	Sand	Sod/Seed	Concrete
cu yds	cu yd	Loads	cu yd	ton	ton			
593.46	14.3		681.25					

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS FOR 100 HILL

P100HI-

SAMPLE	XRF	ASC	ASC
POINT	TOTAL PB	TOTAL PB	TCLP PB
001F	107	128	<.100
002F	68	63.3	<.100
003F	116	100	<.100
001B	2167	1860	1.55
002B	1112	1340	2.16
003B	1917	1660	7.58

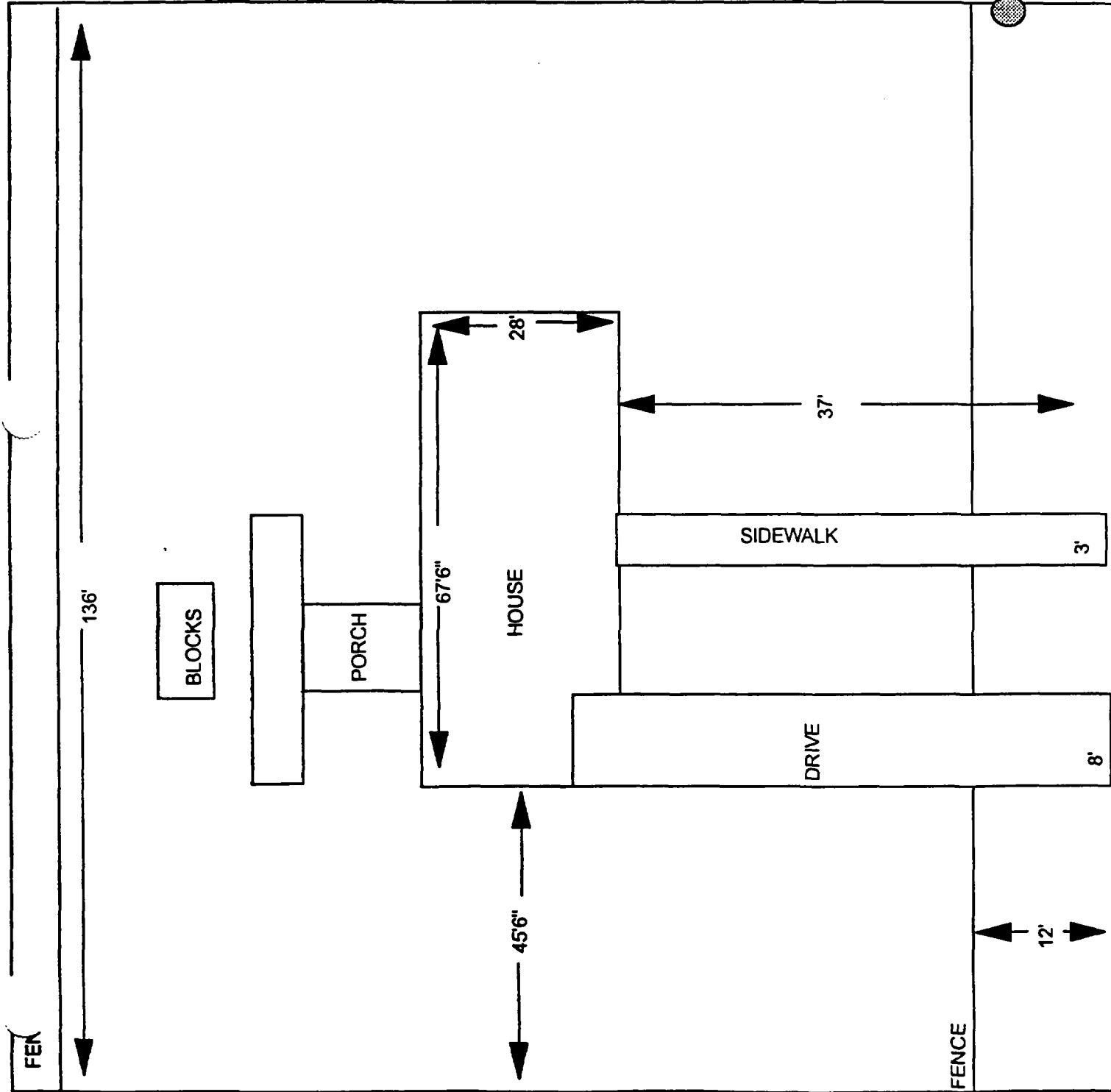
OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

ADDRESS: 100HILL

[illegible]

(

FEK



FIREHYDRANT



100 HILL

7/6/95

TOTAL
DIMENSIONS:
107' X 136'

DRAWN BY:AS

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205 Hill

Action Date: 10-7-95

Loadout: 10-7-95

Restoration Begins: 10-21-95

Restoration Completed: 11-6-95

***An excavation depth of 3 feet was the average for the yard**

***The excavation of hazardous waste yielded 1822.77 cubic yards and the excavation of special waste yielded 11.62 cubic yards, which was shipped to WMI-Milam for disposal.**

***Problems incurred:**

***OHM broke a gas line that the gas company had to come repair.**

***Equipment utilized during excavation:**

***TL26**

***Roller**

***JD Loader**

***JD Dozer**

***17KW Generator**

***Subcontractors:**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling topsoil

***WMI**

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

205 HILL

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
1822.77	11.62	95 LOADS	339.22	187.75	100.7			

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

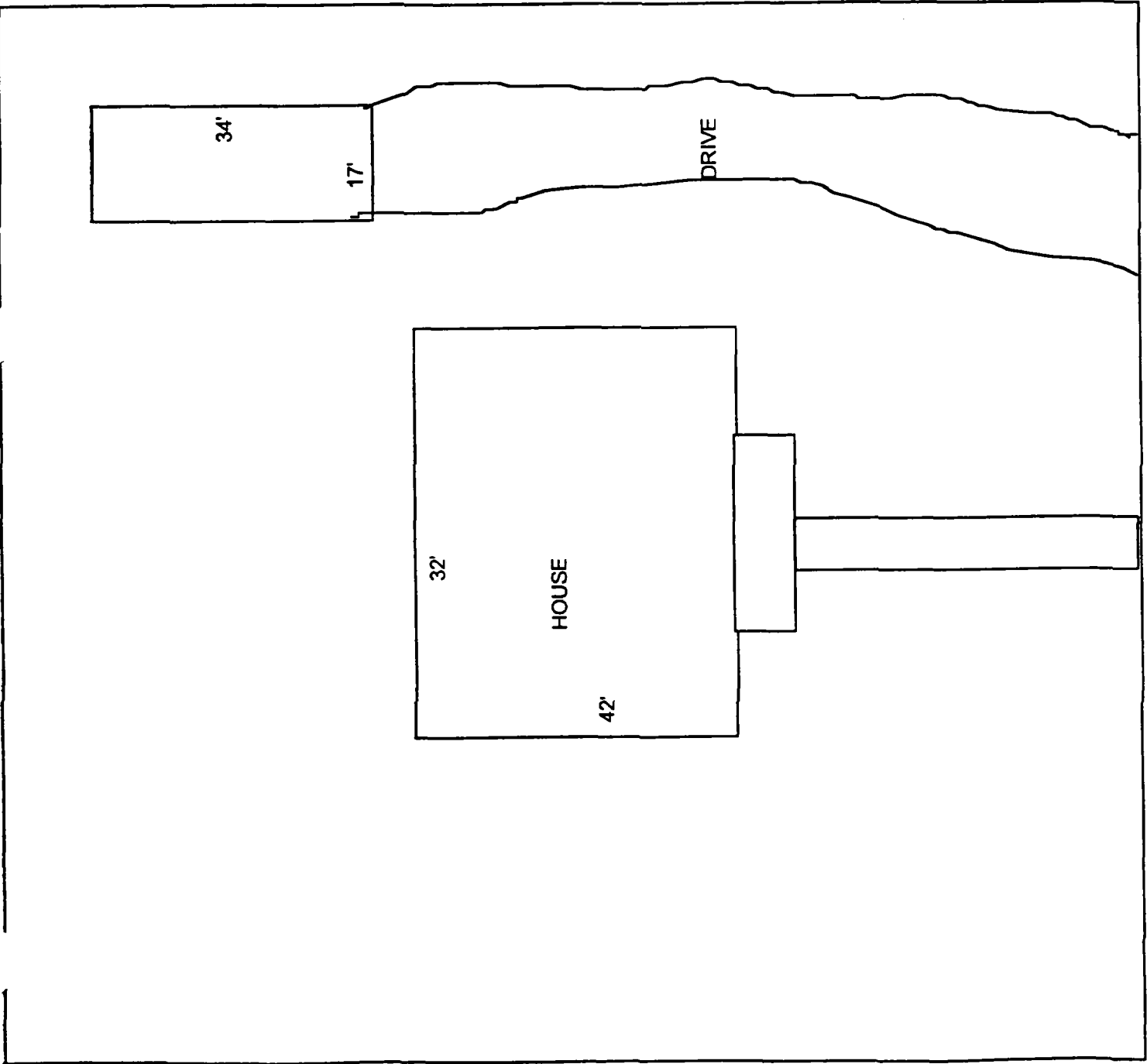
* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

205 HILL

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S205HI	100	11	31.8
	101	33	47.1
	102	72.5	65.5
	103	33	88.2
	104	7	11.8
	105	78	99.4
	106	340	200
	107	117	135
	108	26.5	17.2
	109	91	119
	110	247	280
	111	248	305
	112	36.5	27.3
	113	35	30.3
	114	414	431
	115	30	325
	116	35	27.5
	117	157.5	108
	118	64.5	57.6
	119	23	11.5
	120	11.5	11.5



205 HILL

65' X 195'

9/21/95

DRAWN BY:AS

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Action Date:5-2-95

Loadout:5-2-95

Restoration Begins:6-8-95

Restoration Completed:6-25-95

*An excavation depth of 24 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 593.46 cubic yards and the excavation of special waste yielded 142.21 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM broke a cable line which was repaired by the cable company.

*Equipment utilized during excavation:

*TL26

*Bobcat Excavator

*17Kw Generator

*JD Tractor

*444E Loader

*Roller

*490 Excavator

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

OHM CORPORATION
 GRANITE CITY, IL
 PROJECT 16473

QUANTITY SUMMARY FOR: 100 HARRISON

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
WASTE	WASTE							
593.46	142.21	22 LOADS		118.2	43.45			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS FOR 100 HARRISON

P100HN-

SAMPLE	XRF	ASC	ASC
POINT	TOTAL PB	TOTAL PB	TCLP PB
001F	*	6970	28.4
002F	*	122	HOLD
003F	*	HOLD	HOLD
001B	*	549	1282
002B	*	1080	HOLD
003B	*	HOLD	HOLD

*** MEANS NOT SCREENED ON XRF**

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

ADDRESS: 100 HARRISON

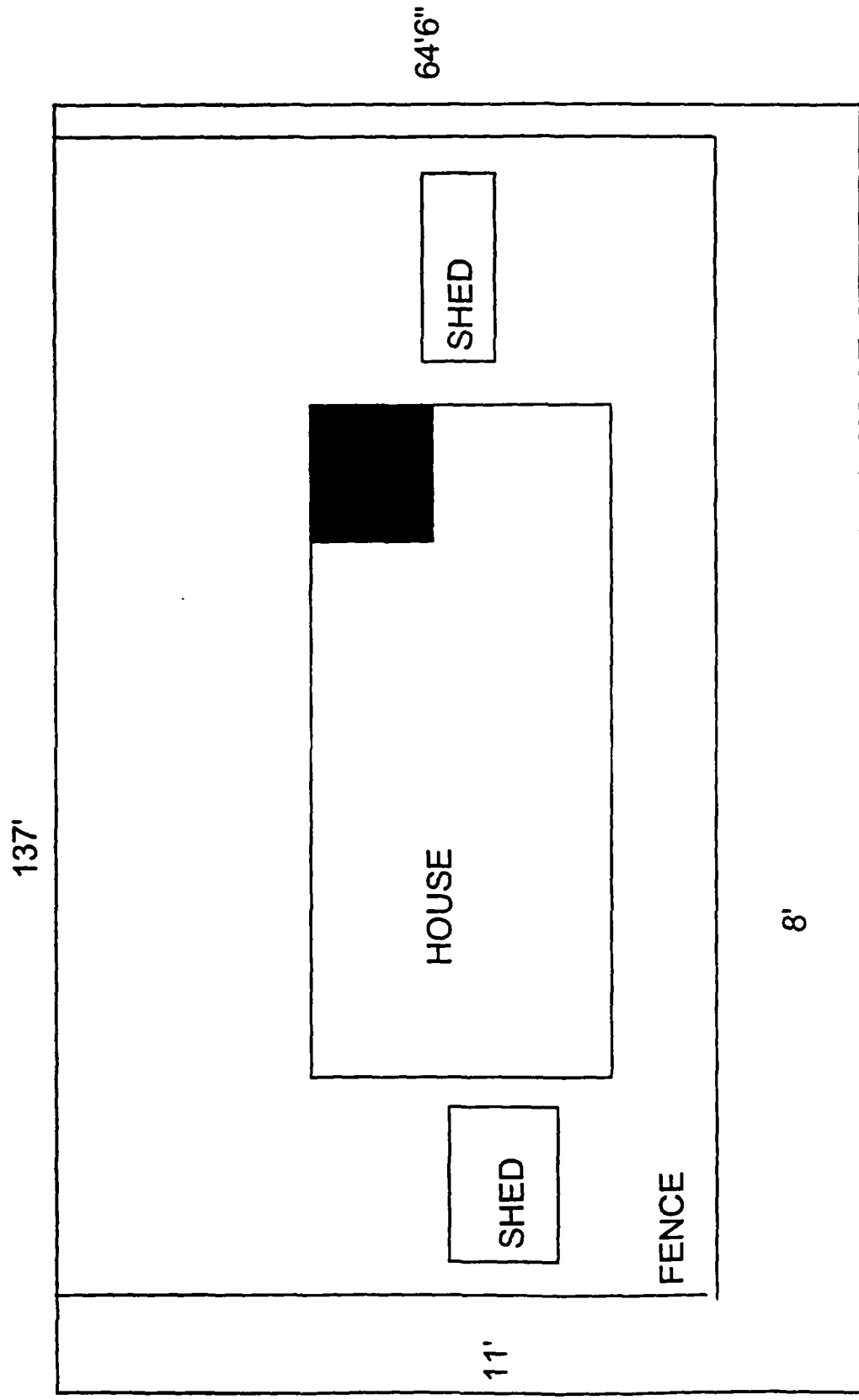
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100 HARRISON

TOTAL DIMENSIONS: 137' X 64'6"

5/2/95

DRAWN BY: AS



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200 Harrison

Action Date:8-18-95

Loadout:8-21-95

Restoration Begins:9-12-95

Restoration Completed:9-19-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 2486.88 cubic yards and the excavation of special waste yielded 73.36 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM hit an old non-functioning gas line.

*OHM hit a water line

*Equipment utilized during excavation:

*TL26

*Bobcat Excavator

*17Kw Generator

*JD Tractor

*444E Loader

*PC150

*490 Excavator

*Subcontractors:

*AWS

-hauling hazardous and special waste

*Grantham

-hauling topsoil

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

200 HARRISON

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
2486.88	73.36	181 TONS		27.95		30 TONS		

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	< 100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

200 HARRISON

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S200HN	100A	1300	1670
	101	302	237
	102	325	315
	103	600	
	104	300	264
	105	255	229
	106	903	955
	107	845	770
	108	4130	4510
	109	1400	
	110	1117.5	
	111	1644	
	112	1709	
	113	640	1020
	114	719.5	982

3'

3'

3'

3'

3'

3'

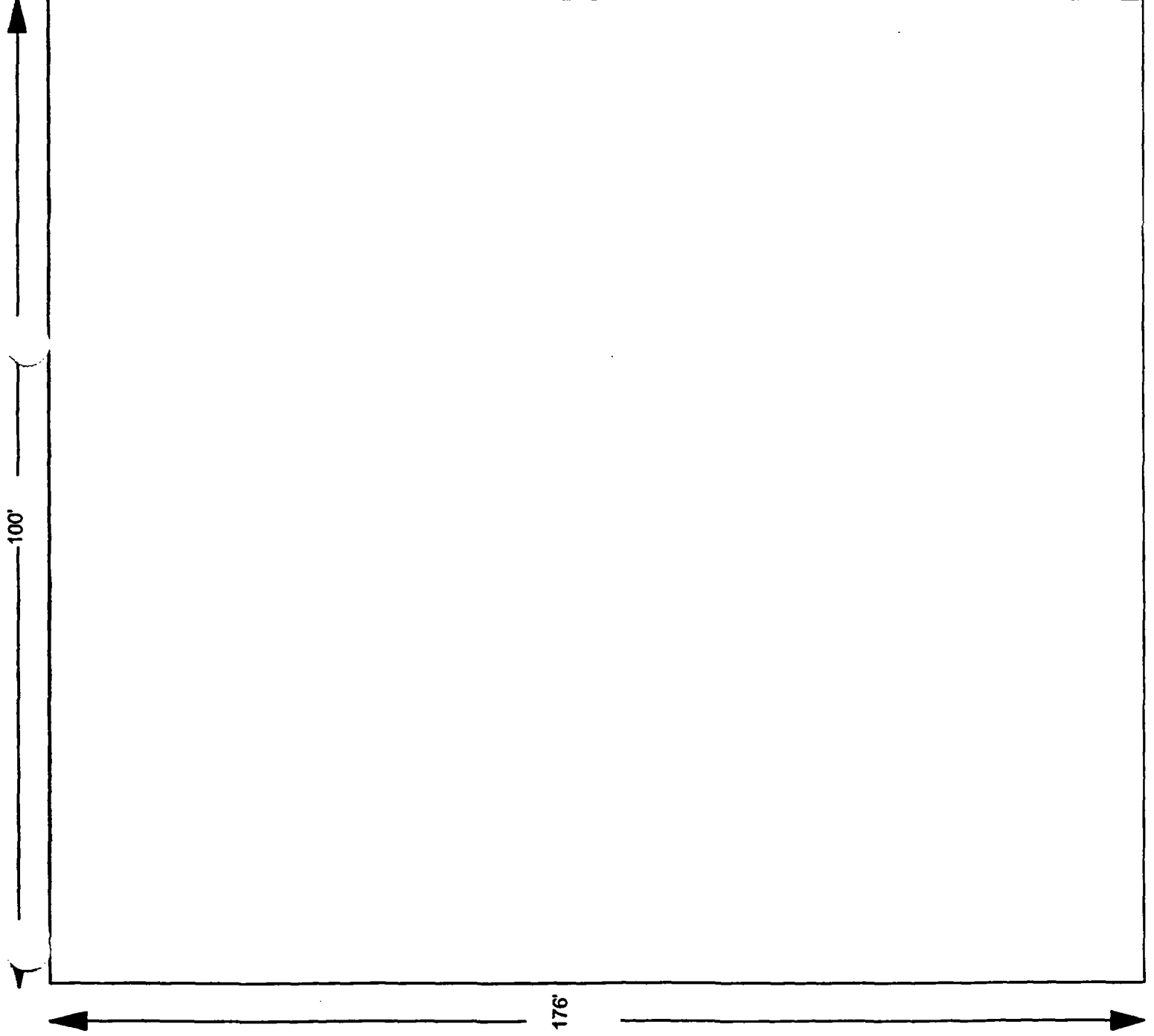
3'

3'

3'

3'

3'



200 HARRRISON

TOTAL DIMENSIONS:
100' X 176'

DRAWN BY: AS

8/18/95

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211 Harrison

Action Date: 7-14-95

Loadout: 7-14-95

Restoration Begins: 7-19-95

Restoration Completed: 10-5-95

***An excavation depth of 36 inches was established by USACE prior to work commencing.**

***The excavation of hazardous waste yielded 551.07 cubic yards and the excavation of special waste yielded 0 cubic yards, which was shipped to WMI-Milam for disposal.**

***Problems incurred:**

***OHM had to turn road pipe over**

***OHM had to repair fence**

***OHM had to put drain line back in place that was taken down for excavation.**

***Equipment utilized during excavation:**

***TL26**

***Roller**

***JDTractor**

***444E Loader**

***17KW Generator**

***PC120 Trackhoe**

***Bobcat Excavator**

***Subcontractors:**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling topsoil

***WMI**

-landfill

OHM CORPORATION
 GRANITE CITY, IL
 PROJECT 16473

QUANTITY SUMMARY FOR: 211 HARRISON

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
551.07	0	37 LOADS	182 TONS	72.3	45.5		SEED	

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS FOR 211 HARRISON

P211HN-

SAMPLE	XRF	ASC	ASC
POINT	TOTAL PB	TOTAL PB	TCLP PB
004F	1714	2510	3.95
005F	124	1270	11.4
006F	1229	34.2	<.100
004B	1198	141	<.100
005B	325	1130	1.64
006B	307	32.7	<.100

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

ADDRESS: 211 HARRISON

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VISIBLE CHIP AREA

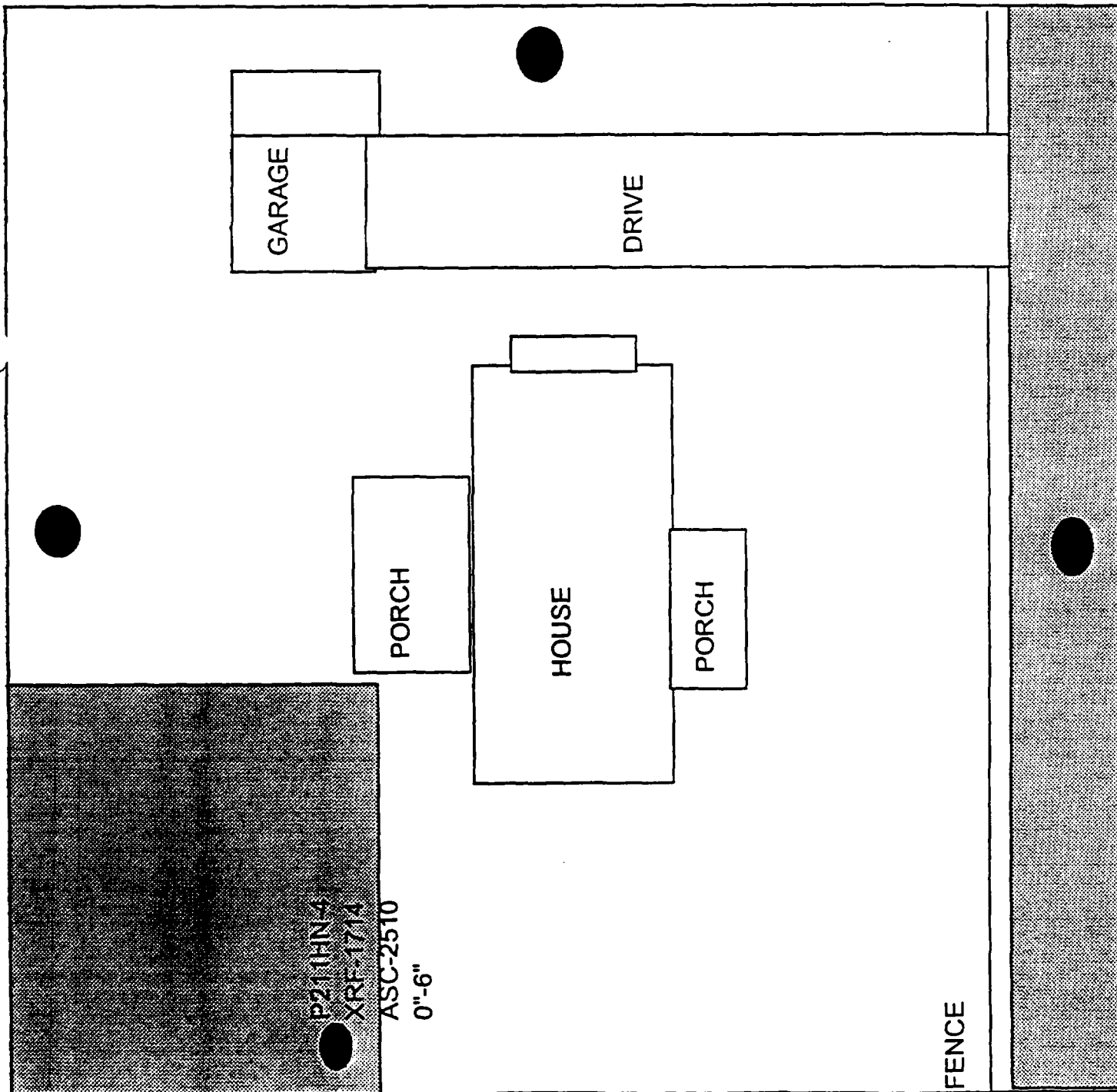
THE REST OF THE
CHIPS WERE
COVERED BY THE
VEGETATION.

SAMPLE POINT
WITH RESULTS
ABOVE 1500 PPM.

211 HARRISON

5/13/95

DRAWN BY: RW



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Action Date: 7-14-95

Loadout: 7-15-95

Restoration Begins: 7-20-95

Restoration Completed: 9-19-95

*An excavation depth of 36 inches was established by USACE prior to work commencing.

*The excavation of hazardous waste yielded 819.54 cubic yards and the excavation of special waste yielded 36.14 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

- *OHM had to replace front sidewalk that was broken during excavation
- *OHM had to repair sewer clean out

*Equipment utilized during excavation:

- | | |
|-------------------|-----------------|
| *TL26 | *Roller |
| *JDTractor | *444E Loader |
| *17KW Generator | *PC150 Trackhoe |
| *Bobcat Excavator | |

*Subcontractors:

- *AWS
 - hauling hazardous and special waste
- *Grantham
 - hauling topsoil
- *WMI
 - landfill

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR: 218 HARRISON

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRET
819.54	*36.14	11 LOADS	390 TONS	112.55	42.85		SEED	

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS FOR 218 HARRISON

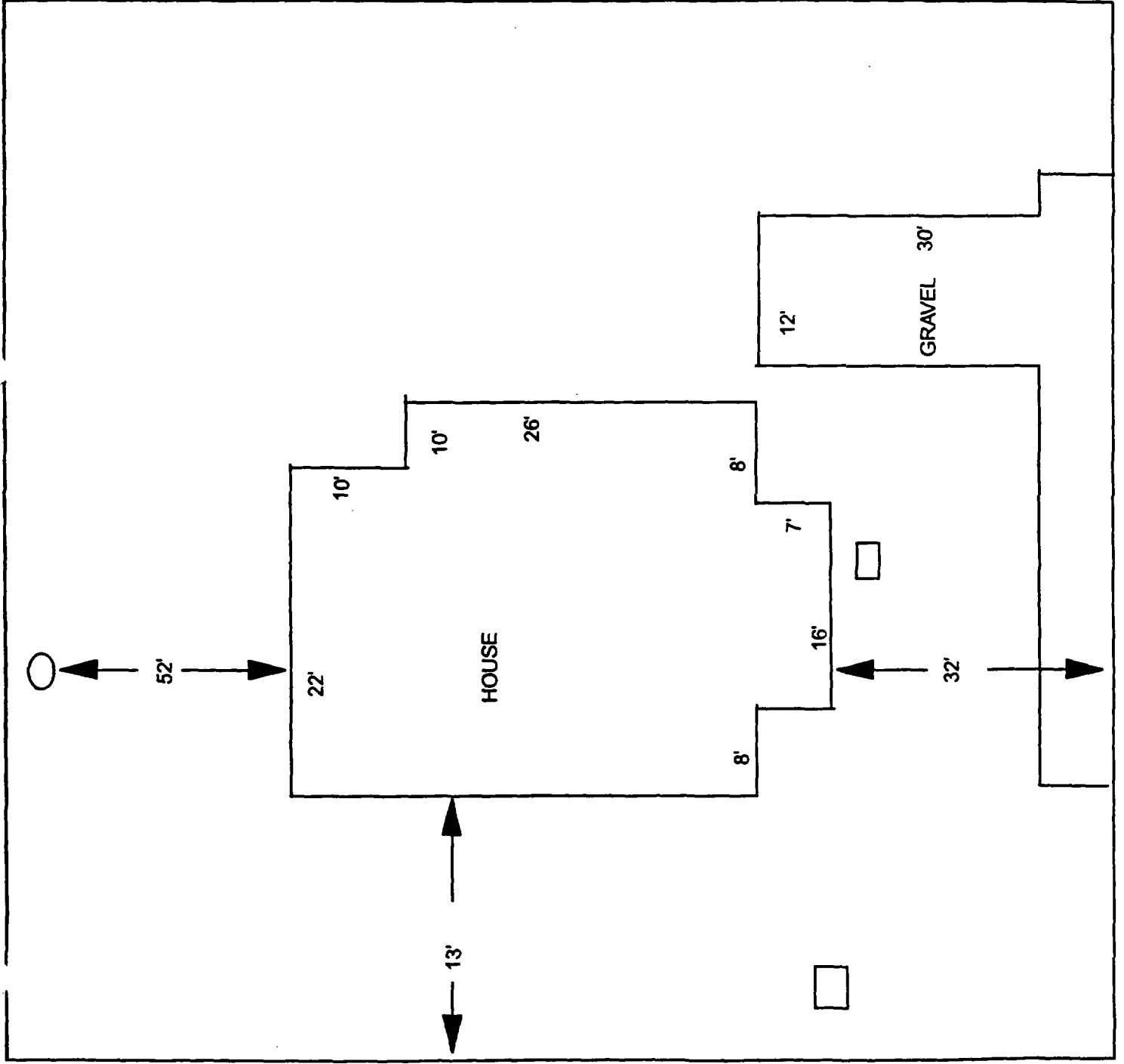
P218HN-

SAMPLE	XRF	ASC	ASC
POINT	TOTAL PB	TOTAL PB	TCLP PB
004F	944	2850	0.58
005F	417	1220	1.01
006F	517	128	<.100
004B	186	455	0.196
005B	1064	233	<.100
006B	101	1120	1.26

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: 218 HARRISON

[illegible]



○ POLE

□ TREE

218 HARRISON
TOTAL

DIMENSIONS:

57' X 173'

DRAWN BY:AS

3/29/95

1

2

3

104 Roosevelt

Action Date: 10/19/95

Loadout: 10/19/95

Restoration Begins: 10/27/95

Restoration Completed: 10/27/95

***Visual contamination was excavated yielding an estimated 395.64 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 2.82 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 18 inches for this property.**

***Problems incurred:**

None

***Equipment utilized during excavation:**

*X331

*Roller

*JD 444 loader

*17K generator

*TL26 Loader

*JD tractor

***Subcontractors**

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

104 ROOSEVELT

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
395.64	2.82	3	112.68	29.3	55.9		SEED	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

PRE-CHARACTERIZATION RESULTS OF SITES WITH VISIBLE BATTERY CHIPS

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	FIXED LAB TOTAL PB	FIXED LAB TCLP PB	OHM APPROVAL	USACE APPROVAL	EPA APPROVAL
200 HARRISON SAND ROAD #2	P200HN-1	51830	69300	244			
	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211/213 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			
104 ROOSEVELT	P104R-1	7960	8730	2.75			
310 ALLEN	P310A-2	5286.5	7620	6.14			
200 ALLEN	P200A-4	4289	3390	1.39			
108 ROOSEVELT	P108R-4	3033.5	5400	1.84			
207 HILL	P207HI-11	2368.5	2440	1.2			
208 HARE	P208HA-11	5015	3710	1.18			
HARRISON-WATSON ALLE	HN-W-1043	2700	2220	0.534			
1430/32 THIRD	143032TH-1	36					
	143032TH-2	49.5					

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

ALL OHM SAMPLES TAKEN AT A DEPTH OF 0"-6"

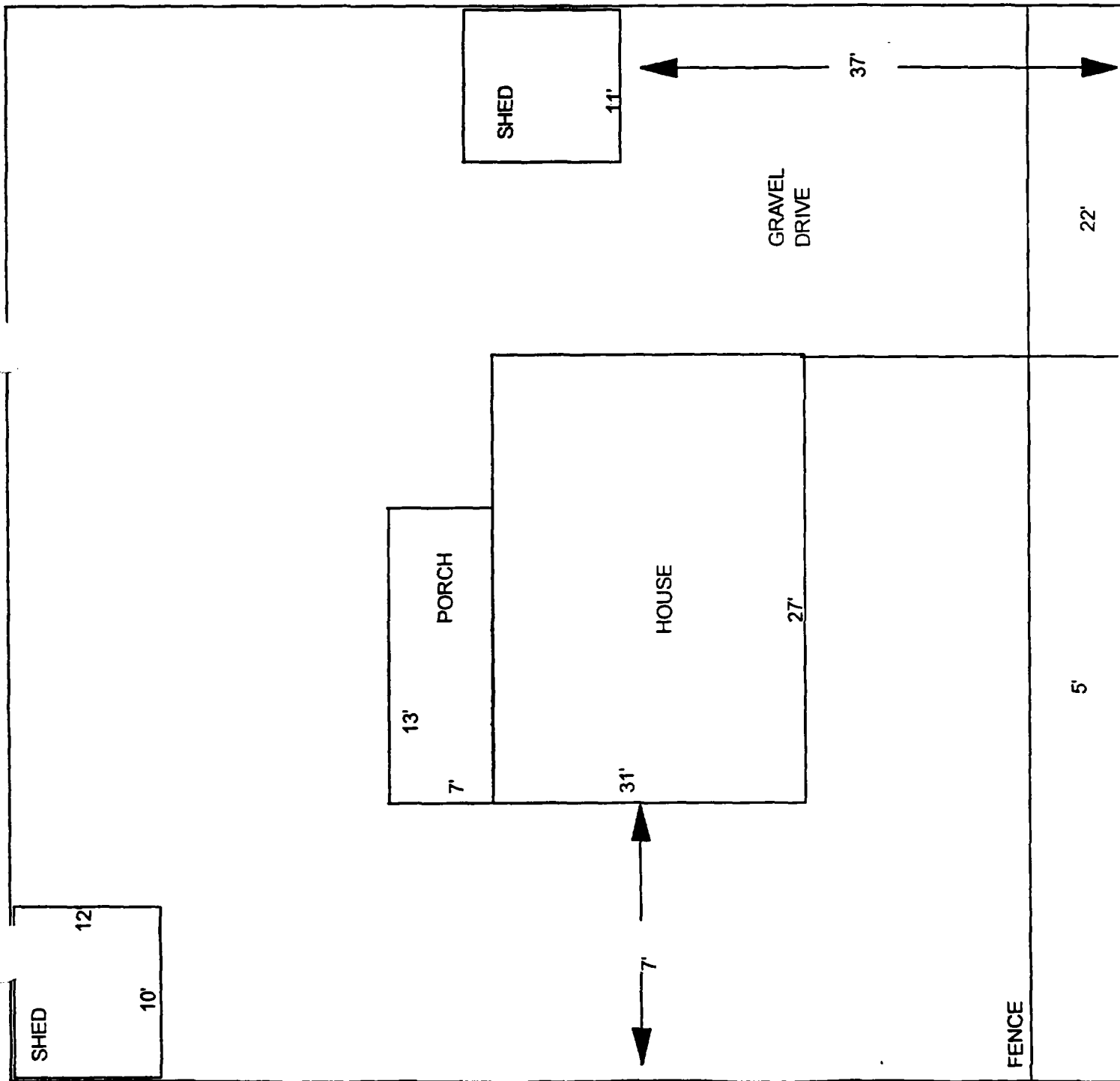
ALL SITE PRE-CHARACTERIZATION SAMPLES ADHERE TO CDAP

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

104 ROOSEVELT

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S104R	100	168.5	141
	101	11.5	35.9
	102	42	85.5
	103	8.5	36.4
	104	297.5	176
	105	239.5	270
	106	347	303



104 ROOSEVELT

10/19/95

TOTAL DIMENSIONS:
52' X 125'

DRAWN BY: AS

✓

✓

✓

108 Roosevelt

Action Date: 10/30/95

Loadout: 10/30/95

Restoration Begins: 11/16/95

Restoration Completed: 11/16/95

*Visual contamination was excavated yielding an estimated 579.33 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 97.1 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 36 inches for this property.

*Problems incurred:

Cut phone line. Phone company repaired

*Equipment utilized during excavation:

*X331

*Roller

*JD 444 loader

*17K generator

*TL26 Loader

*JD tractor

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

108 ROOSEVELT

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
WASTE	WASTE							
579.33	97.1	18	0	103.35	13.65		SEED	

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS OF SITES WITH VISIBLE BATTERY CHIPS

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	FIXED LAB TOTAL PB	FIXED LAB TCLP PB	OHM APPROVAL	USACE APPROVAL	EPA APPROVAL
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211/213 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			
104 ROOSEVELT	P104R-1	7960	8730	2.75			
310 ALLEN	P310A-2	5286.5	7620	6.14			
200 ALLEN	P200A-4	4289	3390	1.39			
108 ROOSEVELT	P108R-4	3033.5	5400	1.84			
207 HILL	P207HI-11	2368.5	2440	1.2			
208 HARE	P208HA-11	5015	3710	1.18			
HARRISON-WATSON ALLE	HN-W-1043	2700	2220	0.534			
1430/32 THIRD	143032TH-1	36					
	143032TH-2	49.5					

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

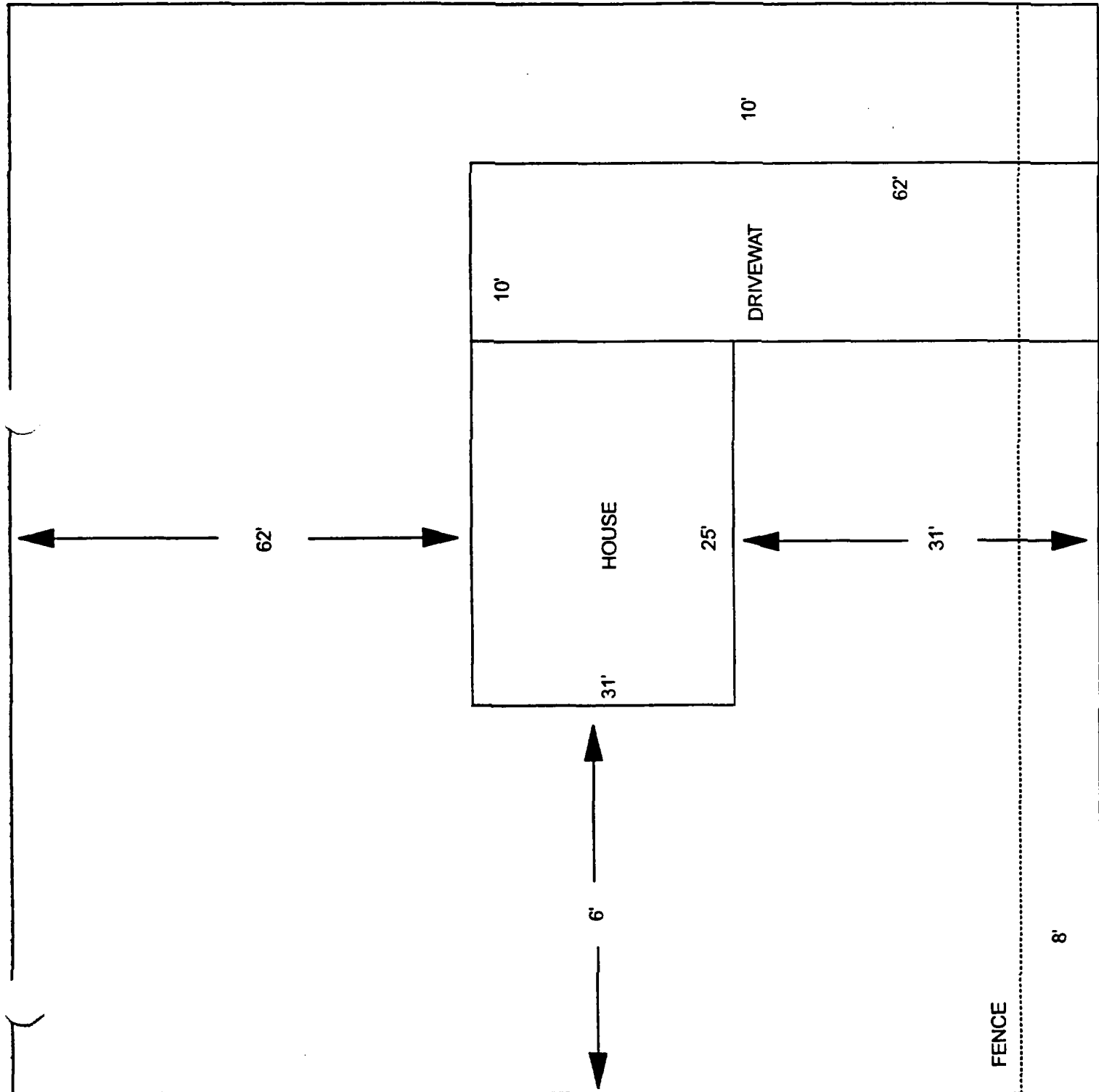
ALL OHM SAMPLES TAKEN AT A DEPTH OF 0'-6"

ALL SITE PRE-CHARACTERIZATION SAMPLES ADHERE TO CDAP

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR: 108 ROOSEVELT

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S108RO	100	223.5	247
	101A	14	10.9
	102	279	233
	103	287	356
	104	260	132
	105	203	323
	106	159.5	173
	107	13	14.7
	108	176.5	213
	109	25	22.2



108 ROOSEVELT

10/19/95

TOTAL
DIMENSIONS:
51' X 124'

DRAWN BY:AS

1

2

3

Sand Road #1

Action Date: 9/20/95

Loadout: 9/22/95

Restoration Begins: 10/18/95

Restoration Completed: 10/24/95

***Visual contamination was excavated yielding an estimated 3885.75 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 1.22 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 36 inches for this property.**

***Problems incurred: None**

***Case 9050 B trackhoe**

***17K generator**

***Dresser 520-C loader**

***Water truck**

***2" sub pump**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone

***WMI**

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

SAND ROAD #1

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY	SOD/SEED	CONCRETE
WASTE	WASTE					STONE		
3885.75	1.22	84 LOADS						

Sand Road 1 had no pre-characterization sampling done due to large presence of battery casing the USEPA directed OHM to excavate.

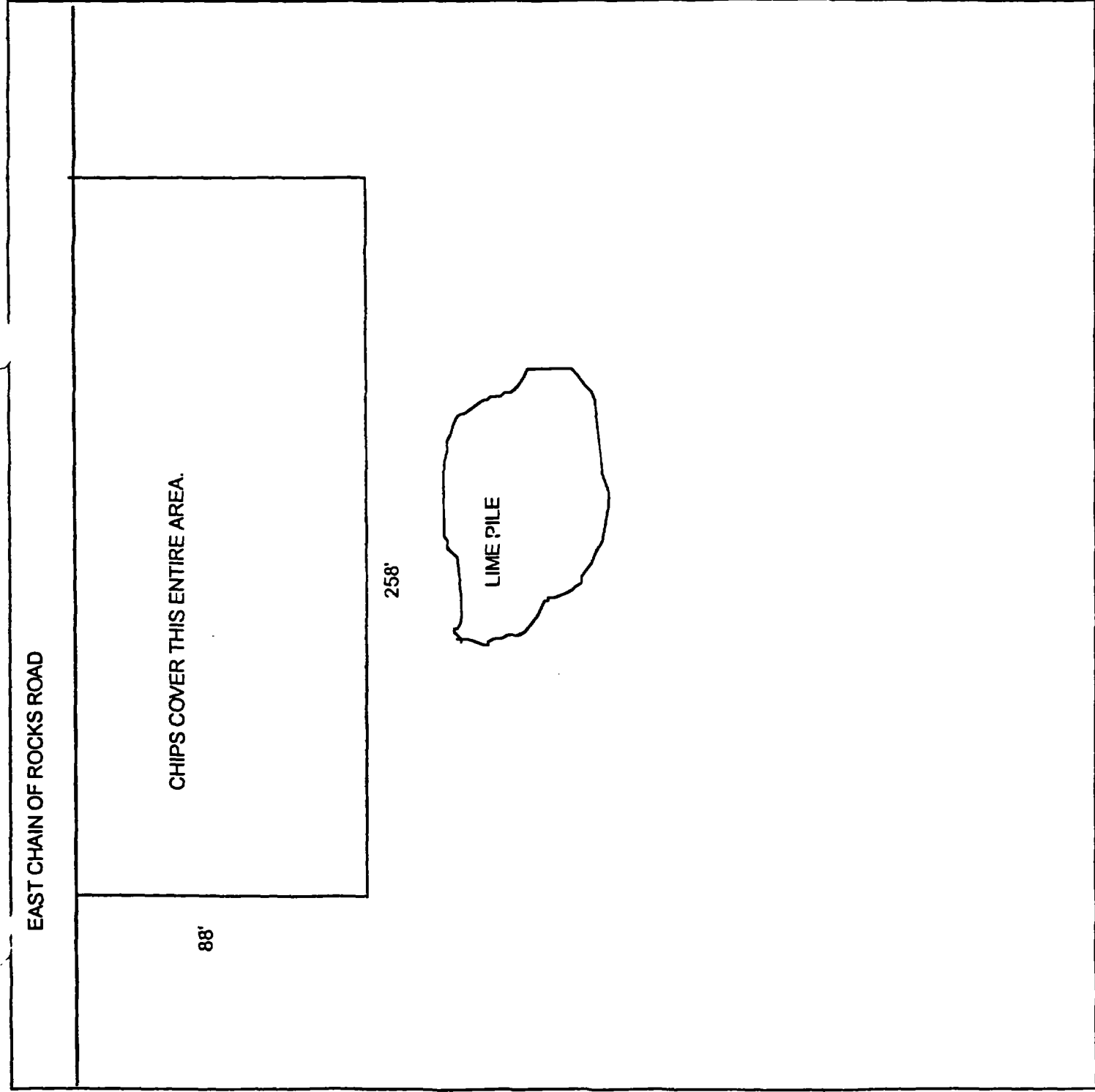
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

SAND ROAD 1

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S	100	89	119
	101	30.5	38.1
	102	182	195
	103	54	55.3
	104	132.5	170
	105	273.5	262
	106	28.5	34.9
	107	98	88.2
	108A	456	54.4
	109	229.5	182
	110A	521	86.2
	111	302.5	289
	112	885.5	
	113	58.5	98.7
	114	45	154
	115A	137	284
	116A	109.5	79.4

3'



SAND ROAD #1

258' X 88'

9/21/95

DRAWN BY:AS

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Sand Road #2

Action Date: 10/8/95

Loadout: 10/10/95

Restoration Begins: 10/23/95

Restoration Completed: 10/26/95

***Visual contamination was excavated yielding an estimated 3080.34 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 81.08 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 36 inches for this property.**

***Problems incurred: 80% of the backfill for this site was removed from the ditch line and placed back within the excavation per USACE rep. Tom Bloodworth.**

***Case 9050 B trackhoe**

***17K generator**

***Dresser 520-C loader**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone

***WMI**

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

SAND ROAD #2

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	A QUALITY STONE	SOD/SEED	CONCRETE
3080.34	81.8	5 LOADS		95.45				

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1610	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

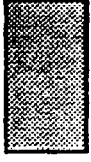
OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

FINAL VERIFICATION RESULTS FOR:

SAND ROAD 2

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S2	100	50	33.6
	101	38	30.4
	102	36	32.1
	103	24	10.6
	104	58	47.8
	105	29.5	25.2
	106	14.5	11.4
	107	19.5	8.62
	108	22	9.71
	109	30.5	29.5
	110	56	36.3
	111	39.5	60.1
	112	47.5	53.9
	113	63.5	58.7
	114	52	232
	115	98	58.4
	116	50	45
	117	326	269
	118A		26.7
	119A		48.4
	120	355	353

VISIBLE CHIP AREA



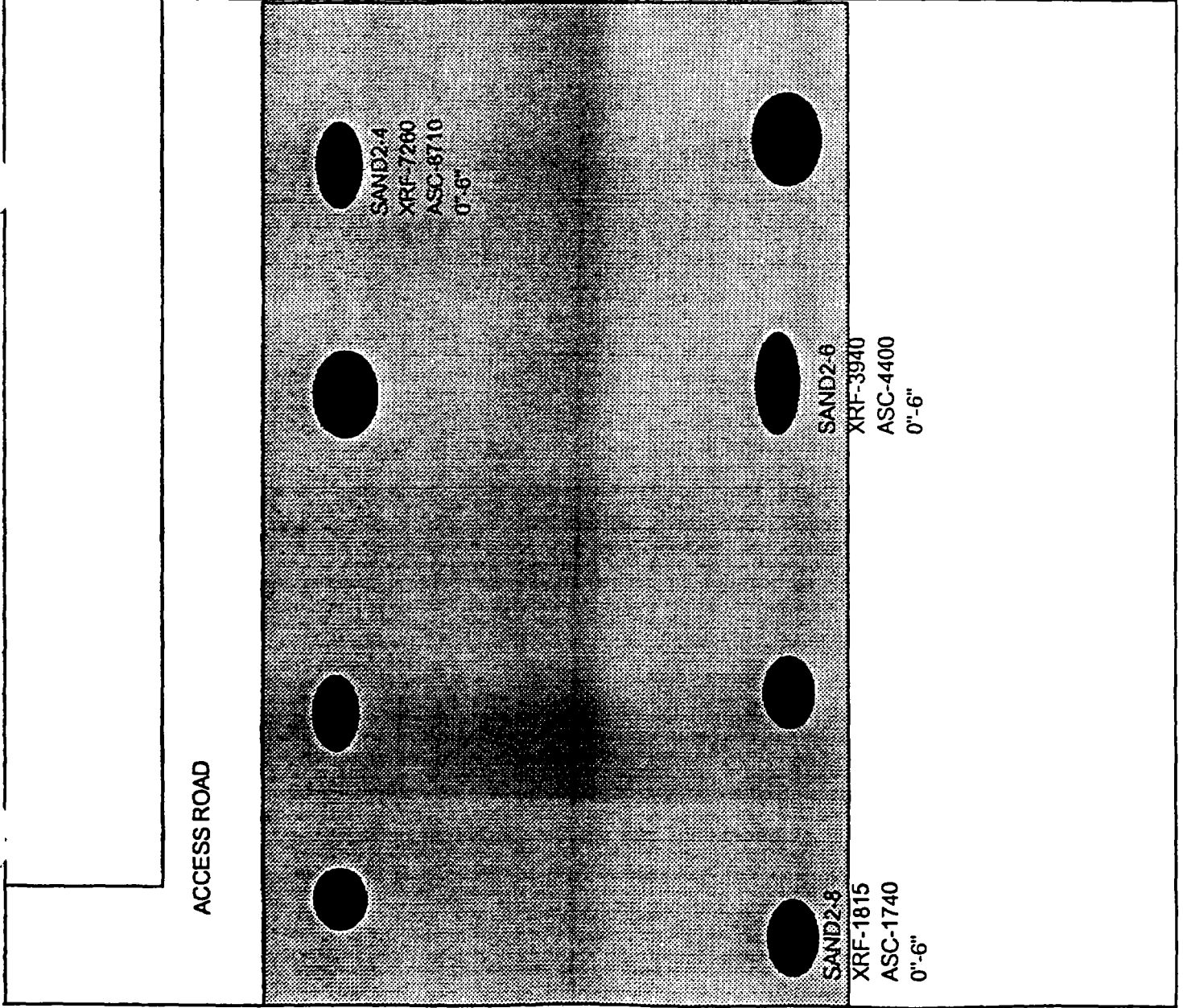
● SAMPLE POINTS WITH RESULTS ABOVE
1500 PPM.

SAND ROAD #2

200' X 30'

9/21/95

DRAWN BY:AS



1

2

3

Schaffer Road

Action Date: 8/28/95

Loadout: 9/7/95

Restoration Begins: 9/19/95

Restoration Completed: 9/22/95

***Visual contamination was excavated yielding an estimated 1766.25 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 9.09 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 36 inches for this property.**

***Problems incurred: None**

*Case 9050 B trackhoe	*Water truck
*17K generator	
*Dresser 520-C loader	

***Subcontractors**

*AWS	-hauling hazardous and special waste
*Grantham	-hauling stone
*WMI	-landfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/20/95

HAZARDOUS LOTS NEEDING REMEDIATION

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB	OHM SIGNATURE	USACE SIGNATURE	EPA SIGNATURE
200 HARRISON	P200HN-1	51830	69300	244			
SAND ROAD #2	SAND2-4	7260	8710	57.4			
	SAND2-6	3940	4400	10.8			
	SAND2-8	1815	1740	4.33			
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1			
211 ALLEN	P211A-5	7800	8430	4.04			
217 WATSON	P217W-3	2267	1830	0.92			
209 HARE	P209HA-2	12285	21100	44.8			
220 HARRISON	P220NH-4	1290	2580	1.09			
1420 STATE	P1420ST-1	2389	1920	0.113			
	P1420ST-3	2179	1810	0.136			
	P1420ST-8	1686	1530	0.287			
215 HILL	P215HI-2	3308.5	3150	4.73			
114 CARVER	P114C-1	2932.5	11300	3.84			
301 ALLEN	P301A-6	2489	2350	<.100			
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42			
	PHI-T-15	2404	2020	1.01			
	PHI-T-16	2100	2300	0.799			
205 HARRISON	P205HN-1	1654	1620	1.03			
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95			
	T-HN-8	3072.5	3610	1.02			
	T-HN-9	17725	22300	2.36			
	T-HN-10	3742	3910	0.85			
	T-HN-11	8080	12200	0.91			
	T-HN-12	5005	3990	1.09			
209 ALLEN	P209A-1	3742	4130	1.41			
	P209A-2	12120	11800	8.2			
	P209A-3	5064	5480	4.34			
	P209A-4	7470	9570	14.3			
205 HILL	P205HI-5	7030	17300	9.29			
*219 WATSON	P219W-2	1438	1680	0.623			
109 WEAVER	P108WE-2	2397.5	2470	0.566			
	P109WE-3	2768	2300	0.523			
	P109WE-4	2044	1800	0.369			

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

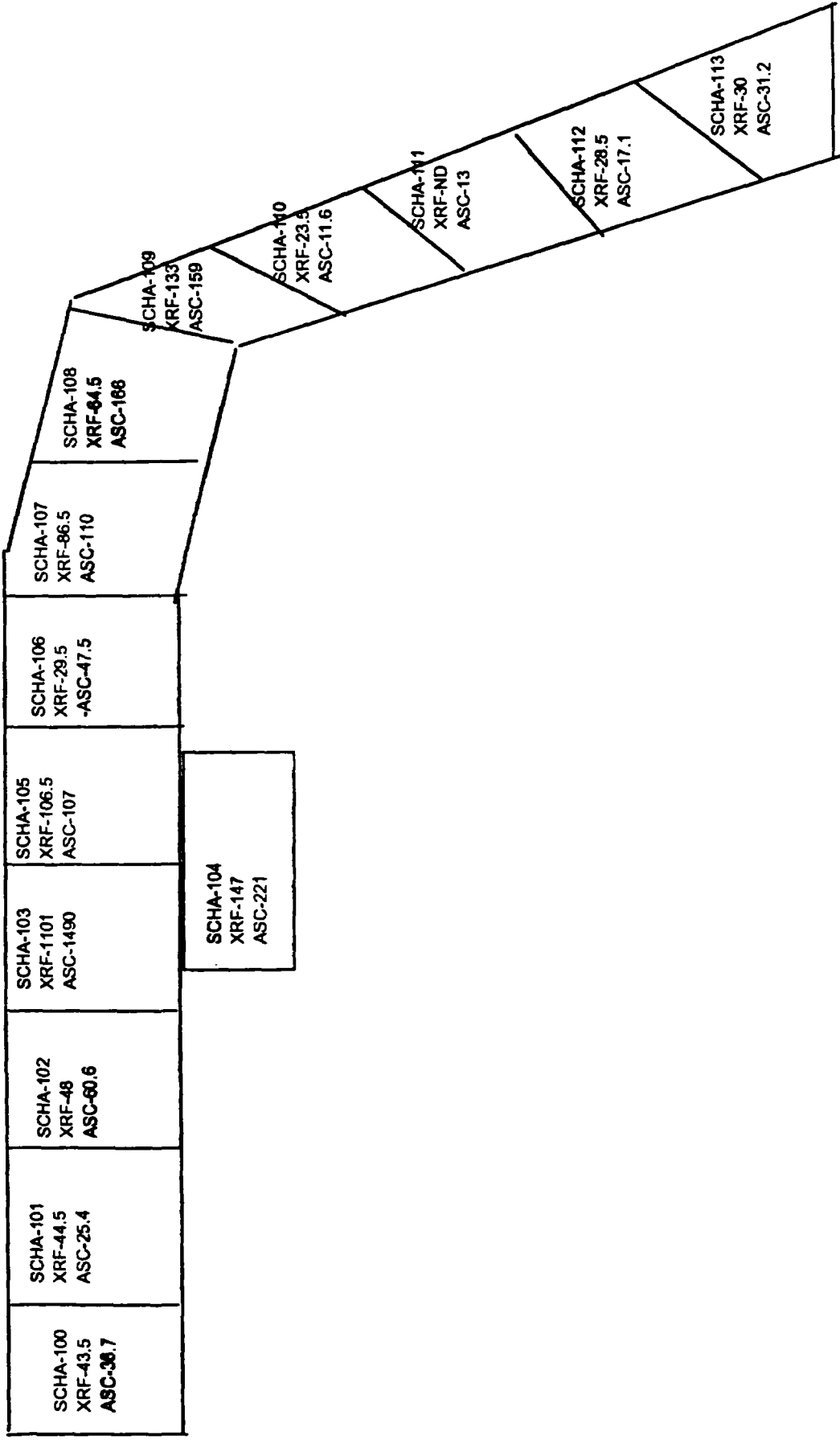
**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

SCHAEFFER ROAD

SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
SCHA	100	43.5	36.7
	101	44.5	25.4
	102	48	60.6
	103	1101	1409
	104	147	221
	105	106.5	107
	106	29.5	47.5
	107	86.5	110
	108	64.5	166
	109	133	159
	110	23.5	11.6
	111	ND	13
	112	28.5	17.1
	113	30	31.2

3'



SCHAEFFER ROAD
DRAWN BY:AS

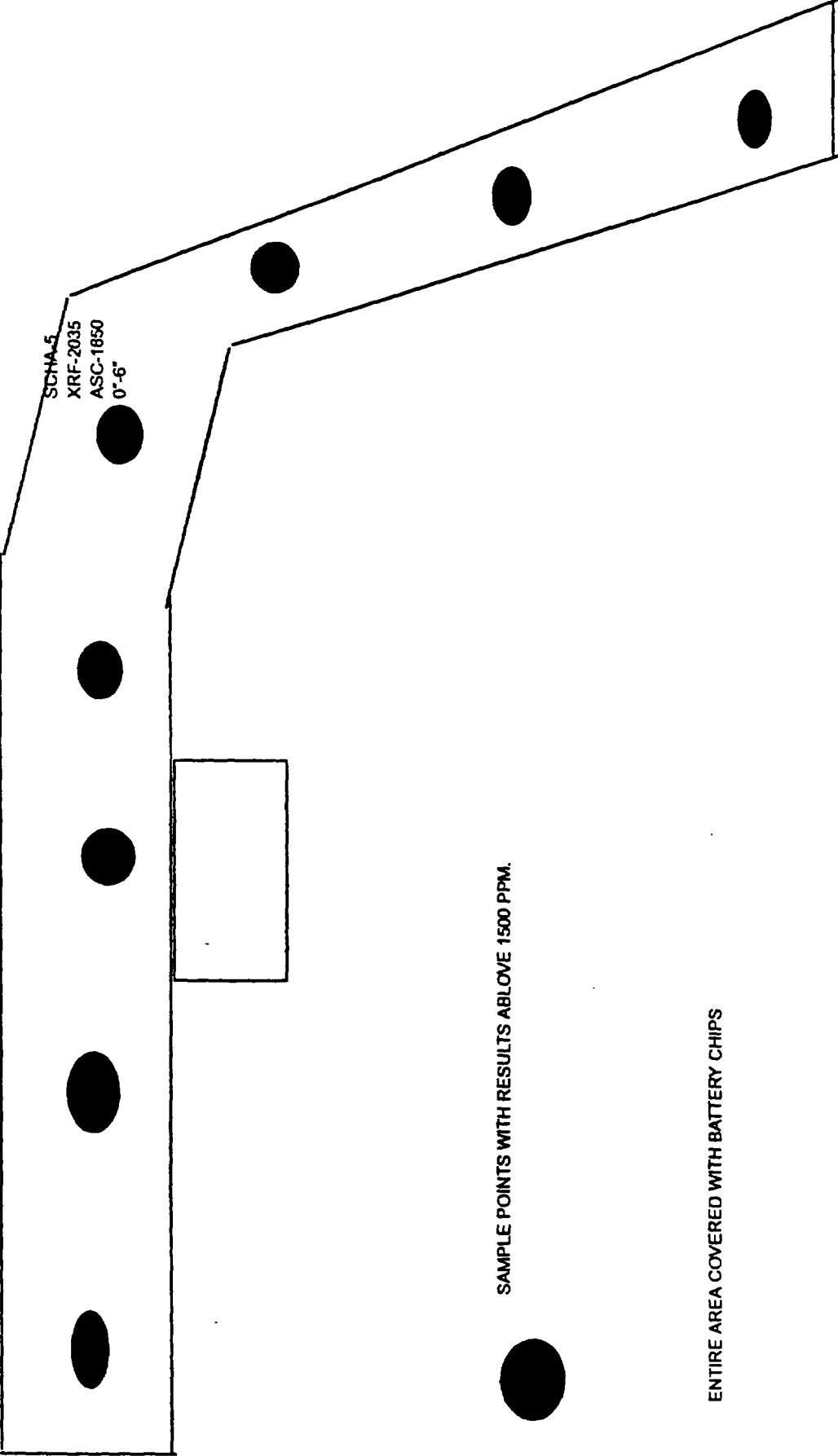
SEPTEMBER 12, 1995

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

SCHAEFFER ROAD

HAZARDOUS WASTE	SPECIAL WASTE	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
1766.25	9.09	89 LOADS						



SAMPLE POINTS WITH RESULTS ABOVE 1500 PPM.

ENTIRE AREA COVERED WITH BATTERY CHIPS

SCHAEFFER ROAD
DRAWN BY:AS

SEPTEMBER 12, 1995

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204 Terry

Action Date: 3/15/95

Load-out: 3/15/95

Restoration Begins: 10/5/95

Restoration Completed: 10/5/95

*Visual contamination was excavated yielding an estimated 1285.83 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 130.36 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average 36 inches for this property.

*Problems incurred:

Backfill took so long due to rain and water volume on this site.

*Equipment utilized during excavation:

*444E-JD loader

*Roller

*17K generator

*TL26 Resco backhoe

*Hertz JD 490 hoe

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR

204 TERRY

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
1285.83	130.36	92 LOADS	438.21	56.3 TON	56.1 TON			

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

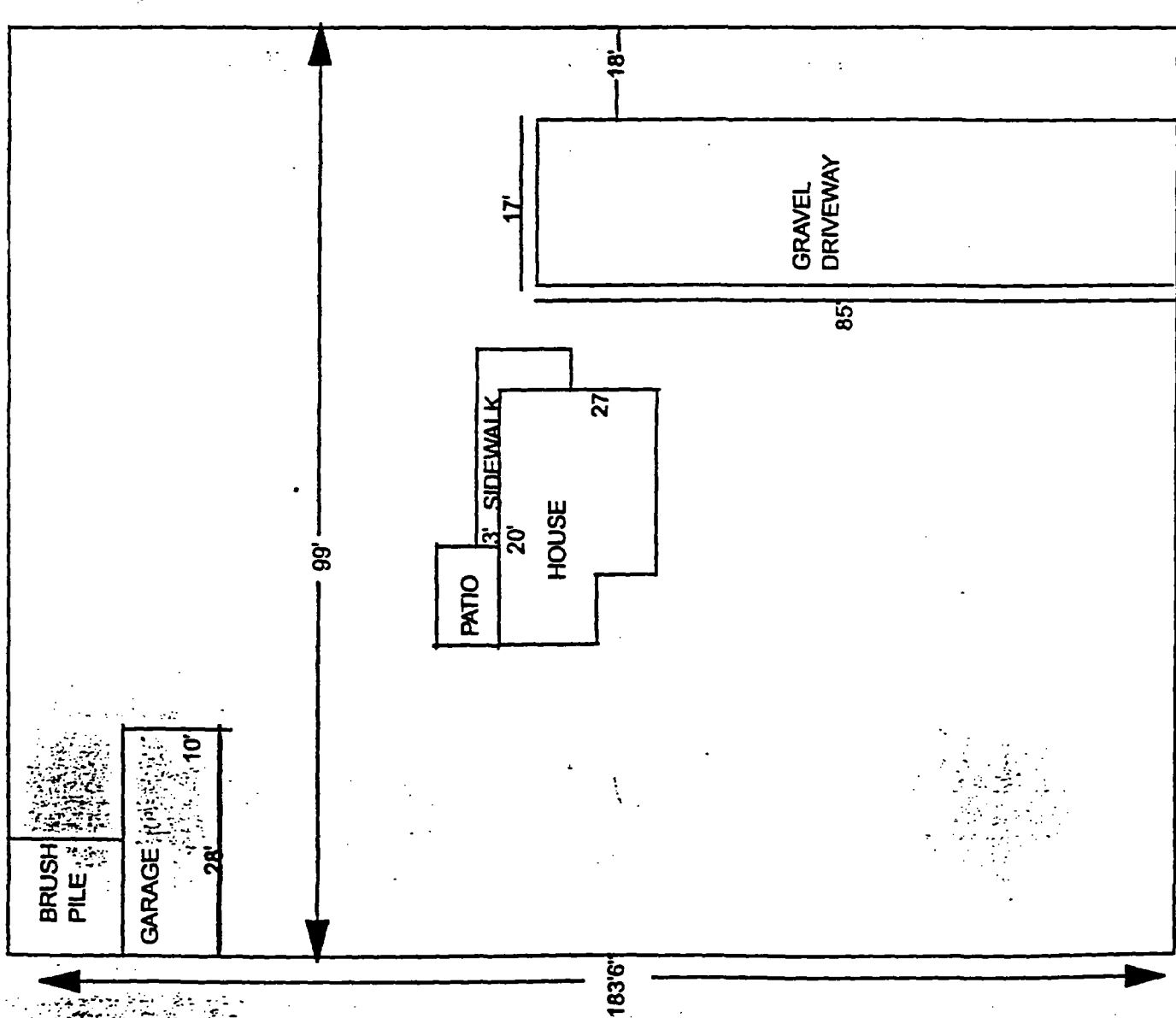
PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

VERIFICATION RESULTS FOR 204 TERRY

SAMPLE NUMBER	XRF RESULT	ASC RESULT
S204T-100A	43	42
S204T-101A	60.4	56.4
S204T-102B	68.5	68.4
S204T-103A	249.5	296
S204T-104	224	196
S204T-105A	24.65	27.5
S204T-106	138	131
S204T-107	281	348
S204T-108	110.5	91.6
S204T-109	134	134
S204T-110	61.95	61.4
S204T-111A	87.5	62.8
S204T-112	137.5	189
S204T-113	155	276
S204T-114	193	149
S204T-115A	58.25	63.4
S204T-116	153	171
S204T-117B	293	251
S204T-118	272	248
S204T-121	37	42
S204T-122	85.5	86
S204T-123	73	74.1
S204T-124	156	158
S204T-125A	54	77.6
S204T-126A	244	206
S204T-127A	47.7	57.1
S204T-128	92	115
S204T-130A	60.9	70.9



204 TERRY

TOTAL DIMENSIONS

183'6" X 99'

2/10/95

DRAWN BY: LR

✓

✓

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204B Terry

Action Date:8/10/95

Loadout:8/11/95

Restoration Begins:8/15/95

Restoration Completed:8/17/95

***Visual contamination was excavated yielding an estimated 847.8 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.**

***The remaining excavation yielded a total of 2.16 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 2 foot the entire area of the lot.**

***Problems incurred:**

***None**

***Equipment utilized during excavation:**

***PC150 Trackhoe**

***17K generator**

***TL26 Loader**

***444E Loader**

***JD Tractor**

***Roller**

***Subcontractors**

***AWS**

-hauling hazardous and special waste

***Grantham**

-hauling stone, fill, topsoil

***WMI**

-landfill

204B TERRY

AREA TO BE EXCAVATED
TOTAL DIMENSIONS

40' X 90'

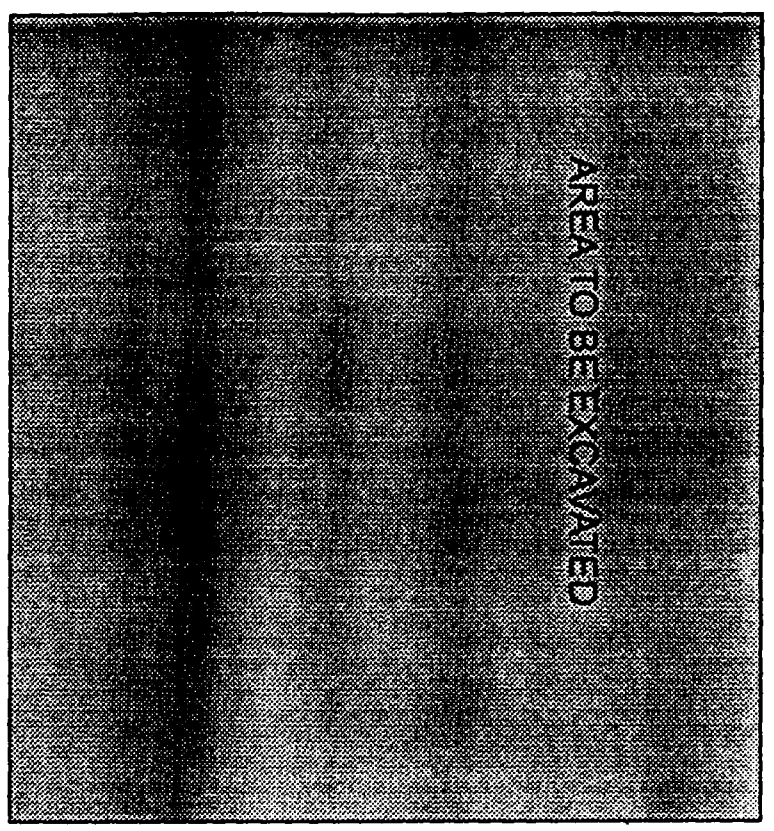
TOTAL FENCED IN AREA
TOTAL DIMENSIONS:

60' X 175'

AUGUST 10, 1995

DRAWN BY: AS

TOTAL FENCED IN AREA



✓

✓

✓

206 Terry

Action Date:2/13/95

Loadout:2/13/95

Restoration Begins:3/23/95

Restoration Completed:4/10/95

*Visual contamination was excavated yielding an estimated 1439.13 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 88.09 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 2 foot the entire area of the lot.

*Problems incurred:

* OHM reseeded the yard two additional times due to difficulty getting grass to grow

*Equipment utilized during excavation:

*PC120 Trackhoe

*17K generator

*TL26 Loader

*753 Bobcat

*JD Tractor

*Roller

*2" pump

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM CORPORATION
 GRANITE CITY, IL
 PROJECT 16473

QUANTITY SUMMARY FOR 206 TERRY

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	CONCRETE
WASTE	WASTE							
1439.13 YDS	88.09	57 LOADS	749.05 TN	15.75 TN			SEED	

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

PRE-CHARACTERIZATION RESULTS GIVEN BY WOODWARD-CLYD

SITE	RESULT
ADDRESS	PPM
109 ALLEN	>1500
111 ALLEN	>1500
113 ALLEN	>1500
204 TERRY	>1500
206 TERRY	>1500
ALLEY 54	7260
ALLEY 55	5770
ALLEY 57	16200
ALLEY 66	
ALLEY 69	3070
ALLEY 70	4840
ALLEY 2	6040
ALLEY 7	2948
ALLEY 36	3600
ALLEY 39	6360
ALLEY 14	4051
ALLEY 22	3560
ALLEY 25	11900
ALLEY 18	2900
ALLEY 30	3170

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

ADDRESS: 206TERRY

[illegible]

House
38' x 50'

Drive
27'

206 Terry
Total
Dimensions:
94' x 181'

1

2

3

311 Terry

Action Date:8/10/95

Loadout:8/12/95

Restoration Begins:8/21/95

Restoration Completed:8/28/95

*Visual contamination was excavated yielding an estimated 876.06 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 3.98 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 2 foot the entire area of the lot.

*Problems incurred:

*OHM hit and repaired a drain line while loading out of this lot.

*Equipment utilized during excavation:

*PC120 Trackhoe

*17K generator

*TL26 Loader

*753 Bobcat

*JD Tractor

*Roller

*2" pump

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone, fill, topsoil

*WMI

-landfill

OHM Corporation
Granite City, IL
Project 16473

QUANTITY SUMMARY FOR 311 Terry

Hazardous	Special	Backfill	Topsoil	CA-6	CA-7	Sand	Sod/Seed	Concrete
cu yds	cu yd	Loads	cu yd	ton	ton			
876.06	3.98		72.63	14.75	29		seed	

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

SITE #	SAMPLE PREFIX	SAMPLE POINT	DESCRIPTION	TOTAL PB MG/KG*
108 CARVER	P108C	004F	0'-6" FRONT	2318
	P108C	004B	0'-6" BACK	121
	P108C	005F	6'-12" FRONT	590
	P108C	005B	6'-12" BACK	139
	P108C	006F	12'-18" FRONT	82
	P108C	006B	12'-18" BACK	29
311 TERRY	P311T	004F	0'-6" FRONT	405
	P311T	004B	0'-6" BACK	1763
	P311T	005F	6'-12" FRONT	208
	P311T	005B	6'-12" BACK	837
	P311T	006F	12'-18" FRONT	88
	P311T	006B	12'-18" BACK	381
100 HILL	P100HI	001F	0'-6" FRONT	107
	P100HI	001B	0'-6" BACK	2167
	P100HI	002F	6'-12" FRONT	68
	P100HI	002B	6'-12" BACK	1112
	P100HI	003F	12'-18" FRONT	116
	P100HI	003B	12'-18" BACK	1917
218 HARRISON	P218HN	004F	0'-6" FRONT	944
	P218HN	004B	0'-6" BACK	417
	P218HN	005F	6'-12" FRONT	517
	P218HN	005B	6'-12" BACK	186
	P218HN	006F	12'-18" FRONT	1064
	P218HN	006B	12'-18" BACK	101
101 HARRISON	P101HN	004F	0'-6" FRONT	230
	P101HN	004B	0'-6" BACK	674
	P101HN	005F	6'-12" FRONT	109
	P101HN	005B	6'-12" BACK	1024
	P101HN	006F	12'-18" FRONT	89
	P101HN	006B	12'-18" BACK	2402
211 HARRISON	P211HN	004F	0'-6" FRONT	1714
	P211HN	004B	0'-6" BACK	124
	P211HN	005F	6'-12" FRONT	1229
	P211HN	005B	6'-12" BACK	1198
	P211HN	006F	12'-18" FRONT	325
	P211HN	006B	12'-18" BACK	607
206 BOOKER	P206B	004F	0'-6" FRONT	799
	P206B	004B	0'-6" BACK	659
	P206B	005F	6'-12" FRONT	73
	P206B	005B	6'-12" BACK	82
	P206B	006F	12'-18" FRONT	40.7
	P206B	006B	12'-18" BACK	24
224 CARVER	P224C	004F	0'-6" FRONT	620
	P224C	004B	0'-6" BACK	362
	P224C	005F	6'-12" FRONT	45
	P224C	005B	6'-12" BACK	404
	P224C	006F	12'-18" FRONT	115
	P224C	006B	12'-18" BACK	218
306 HARRISON	P306HN	004F	0'-6" FRONT	63
	P306HN	004B	0'-6" BACK	178
	P306HN	005F	6'-12" FRONT	44
	P306HN	005B	6'-12" BACK	266
	P306HN	006F	12'-18" FRONT	110
	P306HN	006B	12'-18" BACK	173
209 HARRISON	P209HN	004F	0'-6" FRONT	602
	P209HN	004B	0'-6" BACK	551
	P209HN	005F	6'-12" FRONT	198
	P209HN	005B	6'-12" BACK	463
	P209HN	006F	12'-18" FRONT	134
	P209HN	006B	12'-18" BACK	109

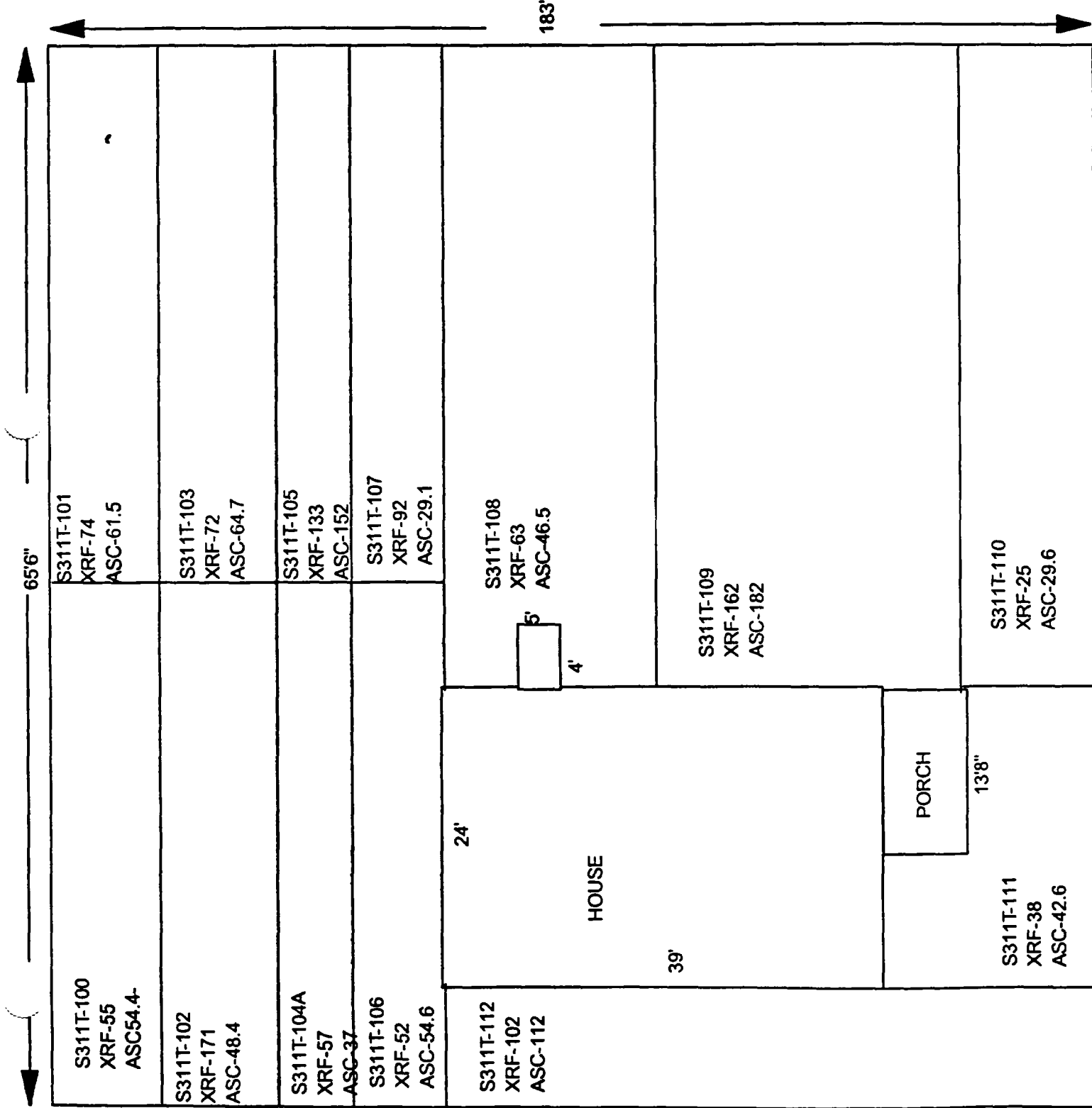
*ALL SAMPLE RESULTS ARE FROM XRF ANALYSIS NOT LAB

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

FINAL VERIFICATION RESULTS FOR:

311 TERRY

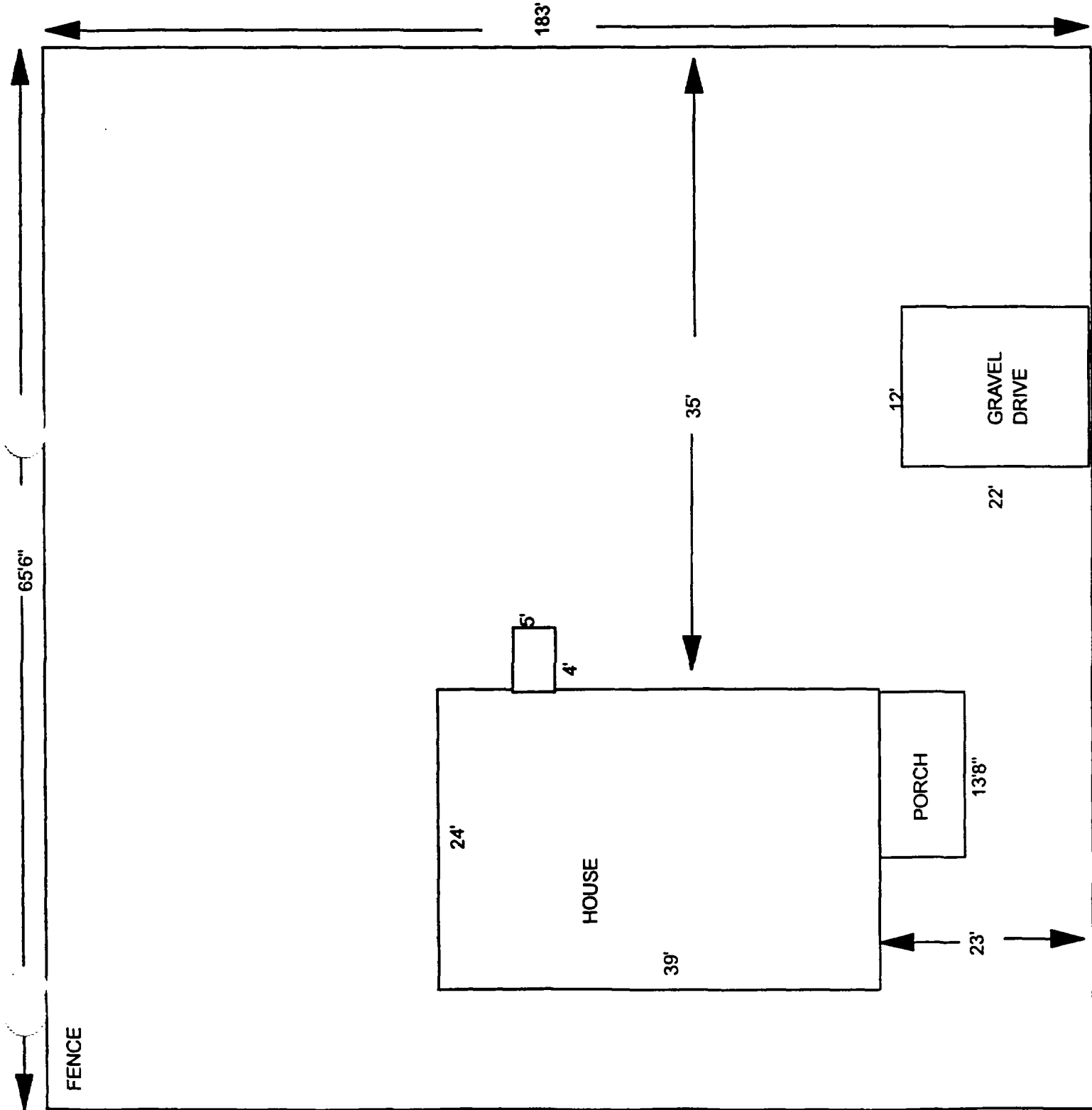
SAMPLE PREFIX	SAMPLE NUMBER	XRF RESULT PPM	FIXED LAB RESULT PPM
S311T	100	54.5	54.4
	101	74	61.5
	102	170.5	48.4
	103	72	64.7
	104A	56.5	37
	105	133	152
	106	51.5	54.6
	107	42	29.1
	108	62.5	46.5
	109	162	182
	110	25	29.6
	111	37.5	38
	112	101.5	102



311 TERRY
65'6" X 183'

DRAWN
BY:AS

8/10/95



311 TERRY
65'6" X 183'

DRAWN
BY:AS

8/10/95

1

2

3

1412 State

Action Date: 11/28/95

Loadout: 11/28/95

Restoration Begins: 11/28/95

Restoration Completed: 11/29/95

*Visual contamination was excavated yielding an estimated 0.0 cubic yards of hazardous waste, which was shipped to the Trust 454/Pugmill site for soil stabilization and waste delisting.

*The remaining excavation yielded a total of 0.0 cubic yards of special waste, which was shipped to WMI-Milam for disposal.

*Excavation depth average at 0 inches for this property.

*Problems incurred:

Two loads of Haz and debris was removed and taken to the pad before we started to level the lot.

*Equipment utilized during excavation:

*Roller

*JD 444 loader

*17K generator

*TL26 Loader

*1 ton box

*Subcontractors

*AWS

-hauling hazardous and special waste

*Grantham

-hauling stone

*WMI

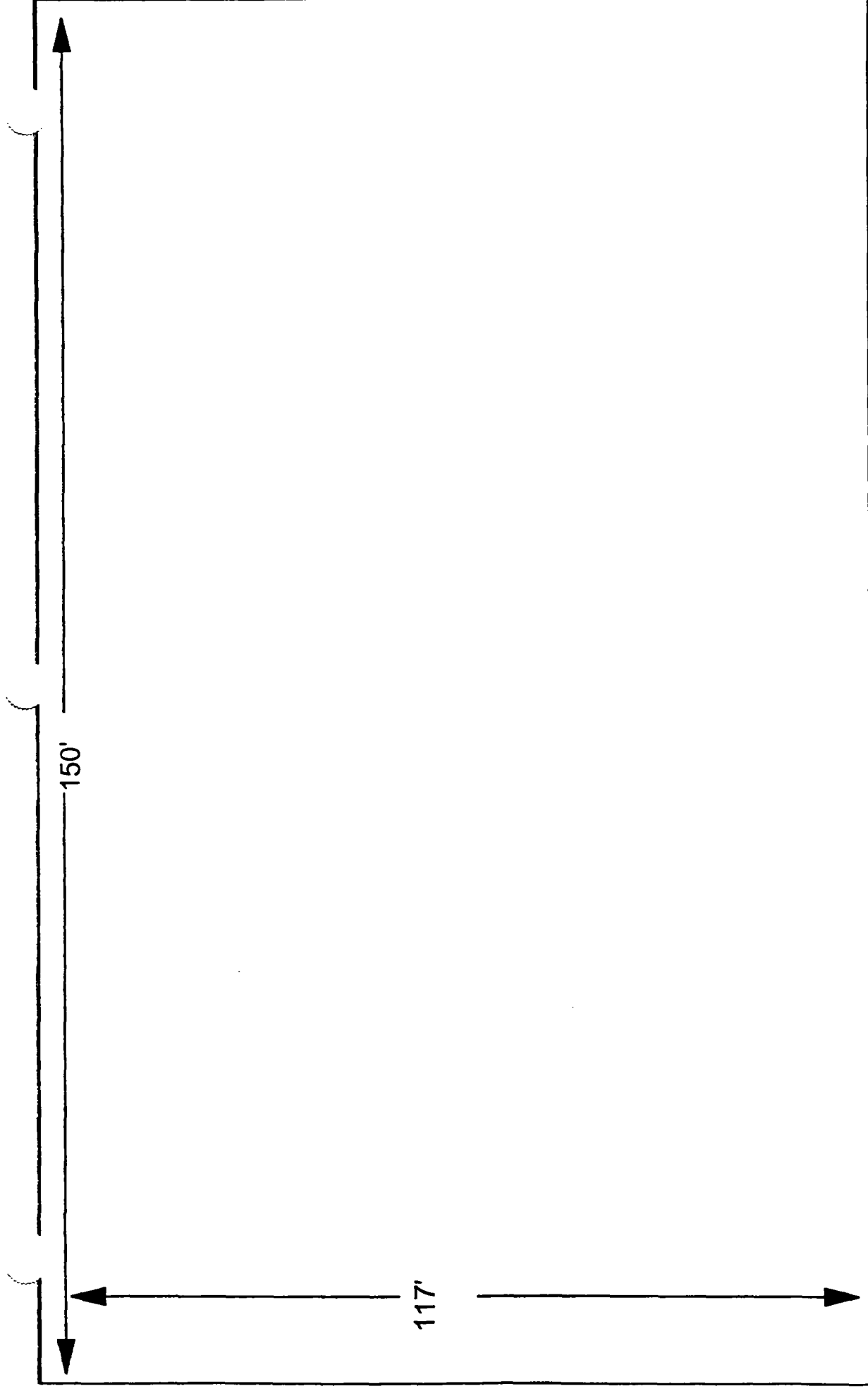
-landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR :

1412 STATE

HAZARDOUS	SPECIAL	BACKFILL	TOPSOIL	CA-6	CA-7	SAND	SOD/SEED	ONCRETE
WASTE	WASTE							
28.26	0	0	0	59.1	0		0	



1412 STATE STREET-PARKING LOT

STATE STREET

1

2

3

1716 Chestnut

Action Date:6/17/96

Loadout:6/24/96

Restoration Begins:6/28/96

Restoration Completed:6/28/96

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 77.22 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM had to use part of adjoining property to gain access to back of property, and repaired adjoining yard during restoration.

*Equipment utilized during excavation:

*Hand tamper

*TL26 Loader

*7 1/2 Roller

*17 KW generator

*X331 Trackhoe

*JD Tractor

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1716 Chestnut

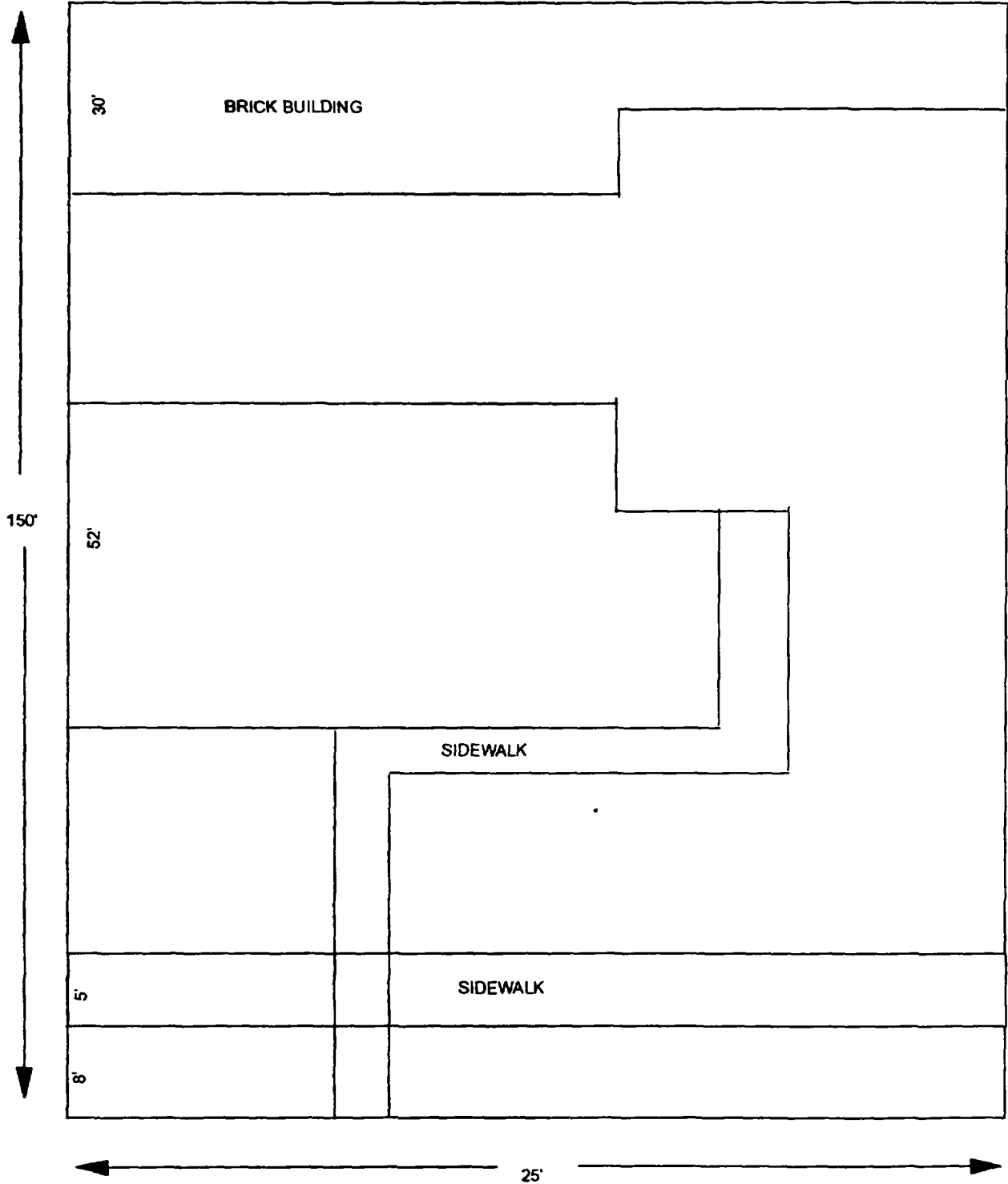
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"


OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

QUANTITY SUMMARY FOR 1716 Chestnut

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
77.22	2	74.3				sod		



1716 CHESTNUT

	OHM  Corporation Findlay, Ohio	
	Drawn By:	Checked By:
	Date:	Approved By:
	Scale:	Drawing No:
	MTB	
	5/20/96	
	NTS	

1732/34 Chestnut

Action Date:6/17/96

Loadout:6/26/96

Restoration Begins:7/2/96

Restoration Completed:7/9/96

***An excavation depth of 12 inches was established by USACE prior to work commencing.**

***The excavation of special waste yielded a total of 132.07 cubic yards, which was shipped to WMI-Milam for disposal.**

***Problems incurred:**

***None.**

***Equipment utilized during excavation:**

***17 KW generator**

***Hand tamper**

***JD Tractor**

***TL26 Loader**

***X331 Excavator**

***Roller**

***Subcontractors:**

***AWS**

-hauling special waste

***Grantham**

-hauling topsoil

***WMI**

-landfill

***Prochnow**

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1732/34 Chestnut

Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

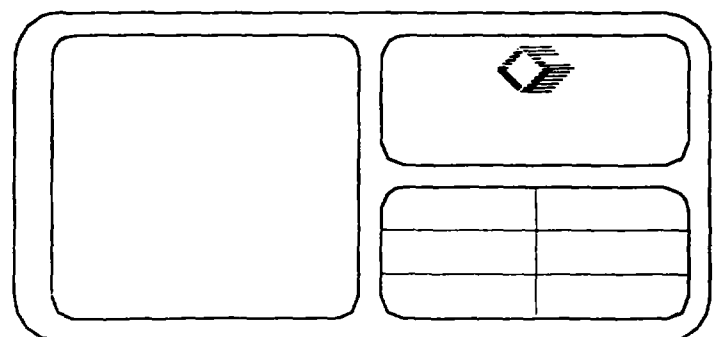
QUANTITY SUMMARY FOR 1732/34 CHESTNUT

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
132.07	5		61.75			SOD		

SIDEWALK

1732/34 CHESTNUT

TOTAL DIMENSIONS
47' X 142.5



3

3

3

1739 Chestnut

Action Date:6/17/96

Loadout:6/21/96

Restoration Begins:6/22/96

Restoration Completed:6/26/96

*An excavation depth of 6 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 100.34 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None.

*Equipment utilized during excavation:

*17 KW generator

*Hand tamper

*JD Tractor

*JCB Backhoe

*TL26 Loader

*X331 Excavator

*Roller

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1739 Chestnut

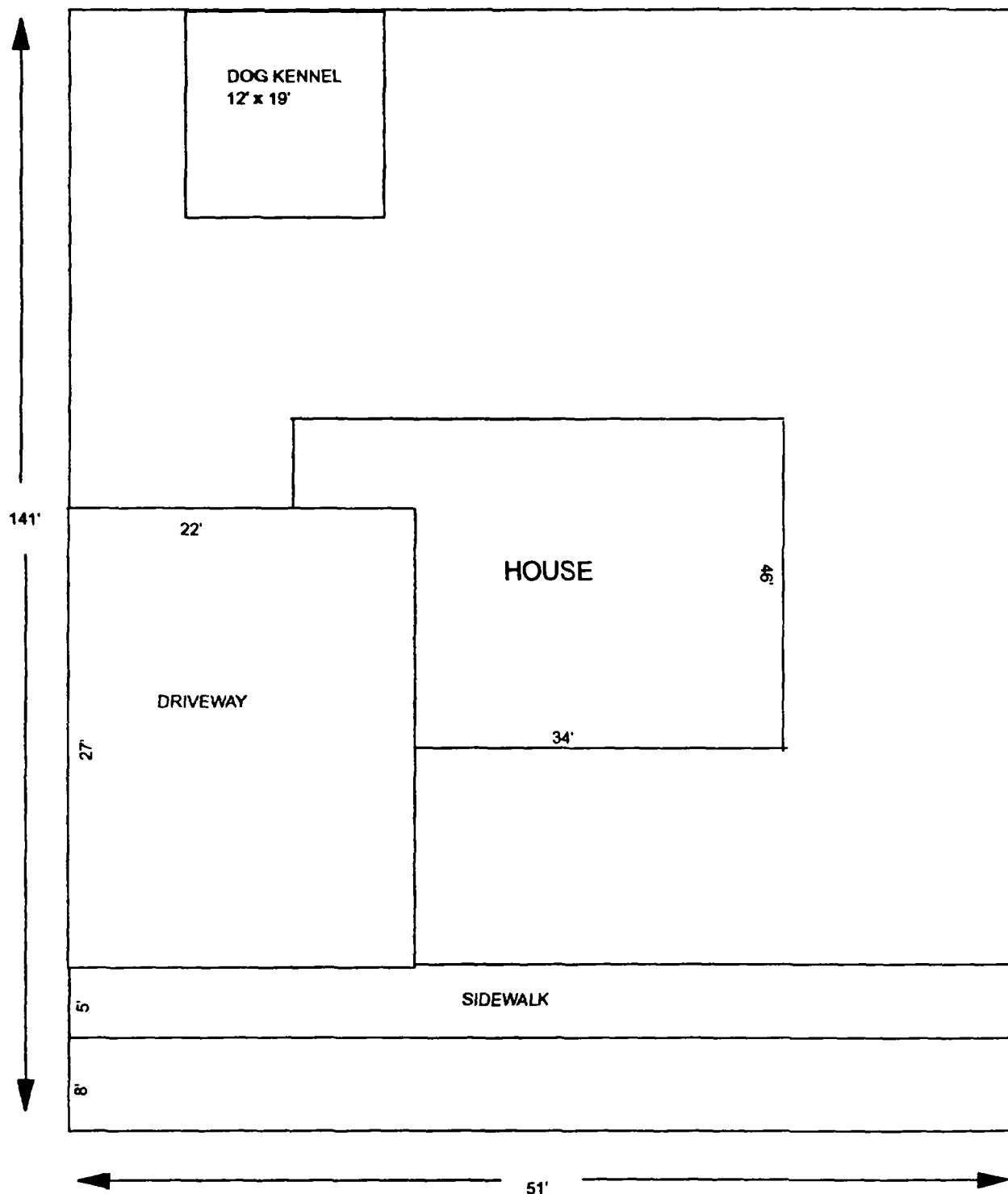
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 6"

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR 1739 Chestnut

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
100.34	2	86.19	15.35			sod		



1739 CHESTNUT

		OHM Corporation Findlay, Ohio	
		Drawn By: MTB	Checked By:
		Date: 5/20/96	Approved By:
		Scale: NTS	Drawing No:

(

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)

1751 Chestnut

Action Date: 7-22-96

Loadout: 7-22-96

Restoration Begins: 7-25-96

Restoration Completed: 8-1-96

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation special waste yielded 269.03 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM found drain clean out below grade and flushed and raised the clean out above grade then capped it

*Equipment utilized during excavation:

*TL26

*Bobcat Excavator

*17KW Generator

*Roller

*JCB Backhoe

*JD Tractor

*Hand Tamper

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow

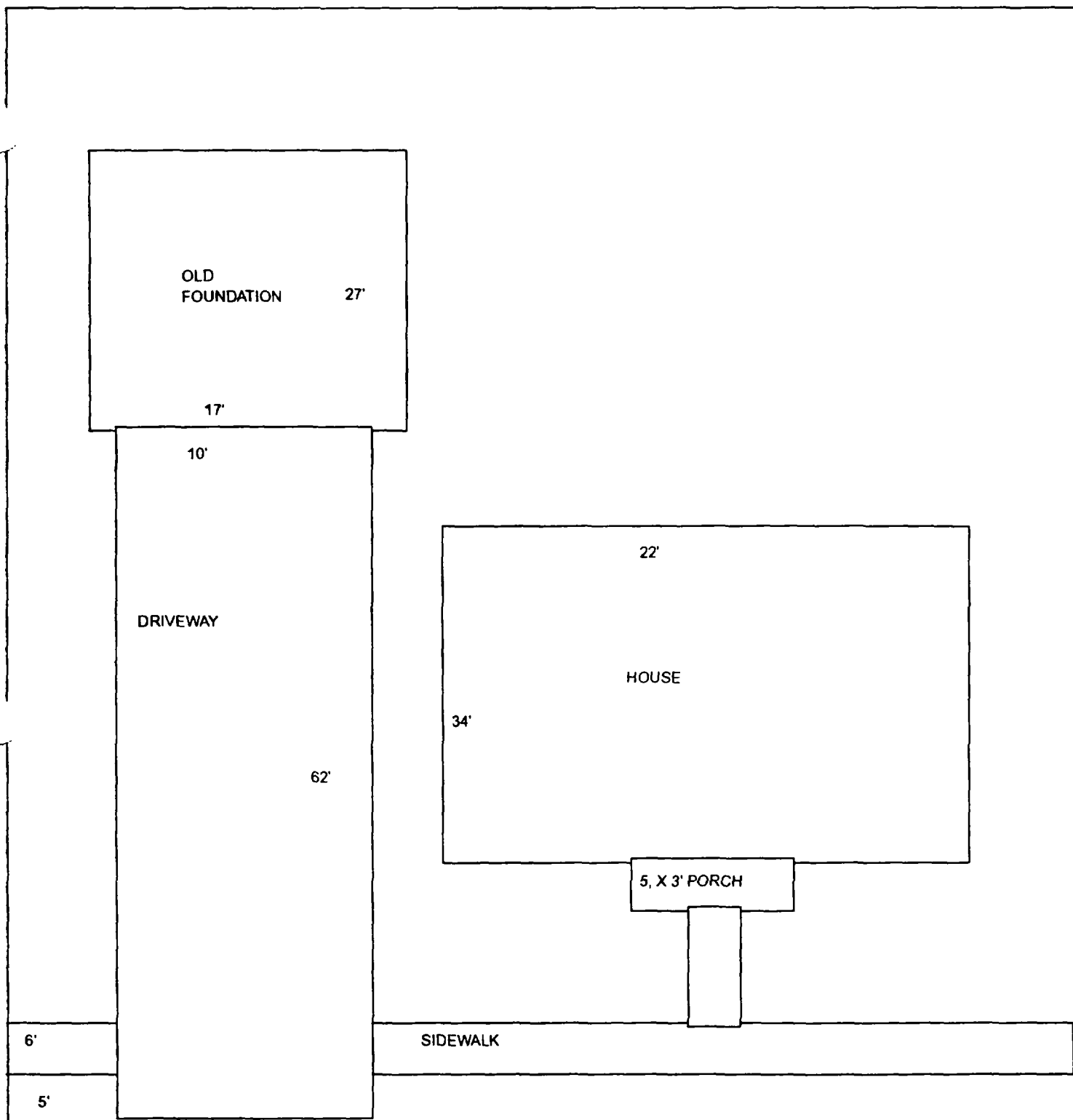
-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1751 Chestnut

Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for depth excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"



1751 CHESTNUT

TOTAL DIMENSIONS:

50' X 143'

	OHM Corporation Findlay, Ohio	
	Drawn By: AS	Checked By:
	Date: 7/22/96	Approved By:
	Scale: NTS	Drawing No:

1754 Chestnut

Action Date:6/17/96

Loadout:6/19/96

Restoration Begins:6/21/96

Restoration Completed:6/24/96

***An excavation depth of 12 inches was established by USACE prior to work commencing.**

***The excavation of special waste yielded a total of 252.34 cubic yards, which was shipped to WMI-Milam for disposal.**

***Problems incurred:**

***During excavation OHM broke front concrete step, and repaired during restoration.**

***Equipment utilized during excavation:**

***Hand tamper**

***TL26 Loader**

***7 1/2 Roller**

***17 KW generator**

***X331 Trackhoe**

***JCB214 Backhoe**

***Subcontractors:**

***AWS**

-hauling special waste

***Grantham**

-hauling topsoil

***WMI**

-landfill

***Prochnow**

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1754 Chestnut

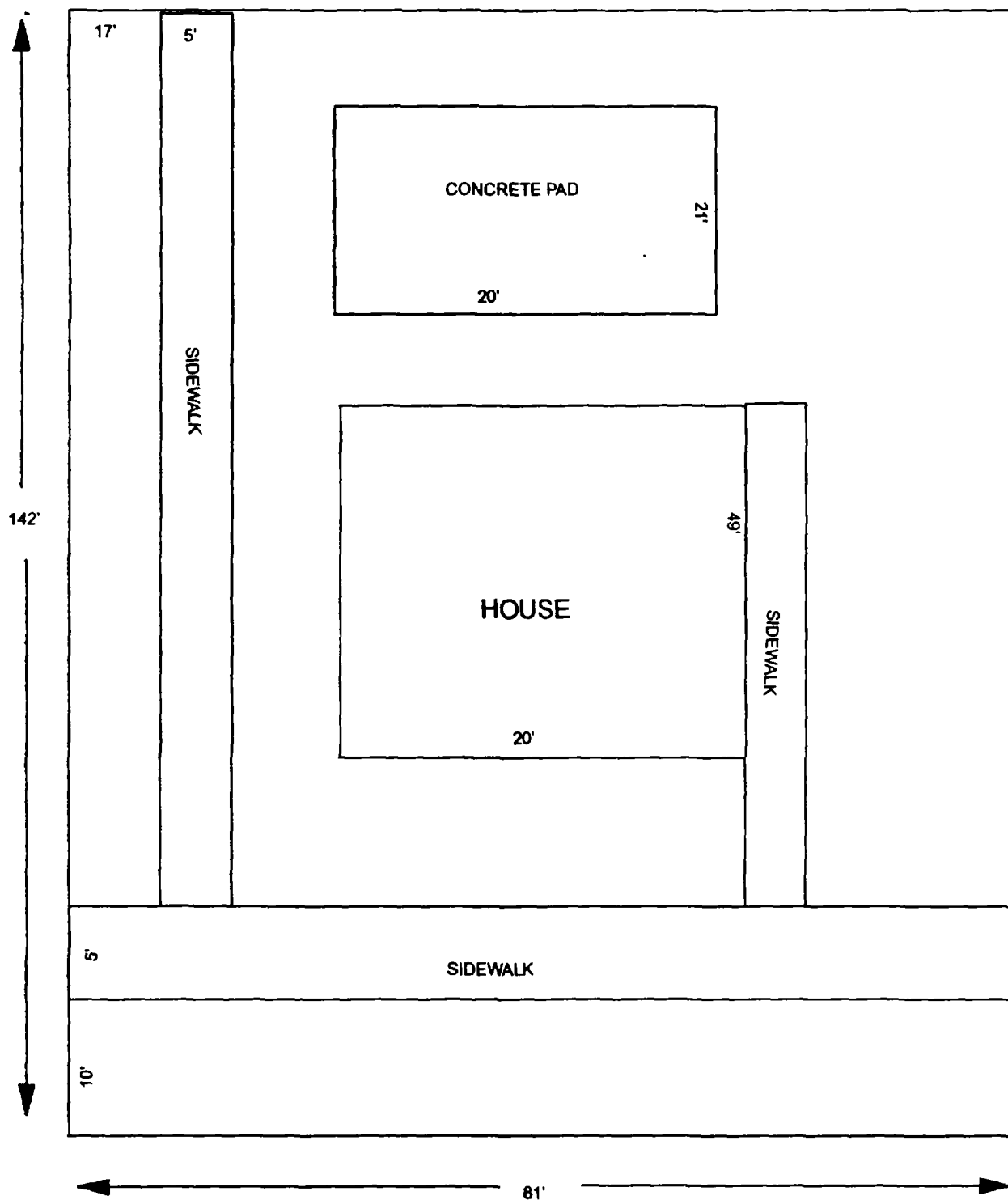
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR 1754 Chestnut

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
252.34	12	101.58	29.95	28.6		sod		



1754 CHESTNUT

		OHM Corporation Findlay, Ohio	
		Drawn By: MTB	Checked By:
		Date: 5/2/96	Approved By:
		Scale: NTS	Drawing No:

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1624/26 Cleveland

Action Date:8/17/94

Loadout:8/18/94

Restoration Begins:8/25/94

Restoration Completed:9/8/94

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 56.52 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM broke and repaired a sewer line

*OHM broke and repaired sidewalk and driveway.

*Equipment utilized during excavation:

*2" pump

*TL26 Loader

*7 1/2 Roller

*444E Loader

*17 KW generator

*X331 Trackhoe

*1 1/2" pump

*Hand Tamper

*Subcontractors:

*AWS

-hauling special waste

*L. Wolf

-hauling topsoil, sod, concrete

*Laidlaw

-landfill

*Grantham

-backfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1624/26 Cleveland

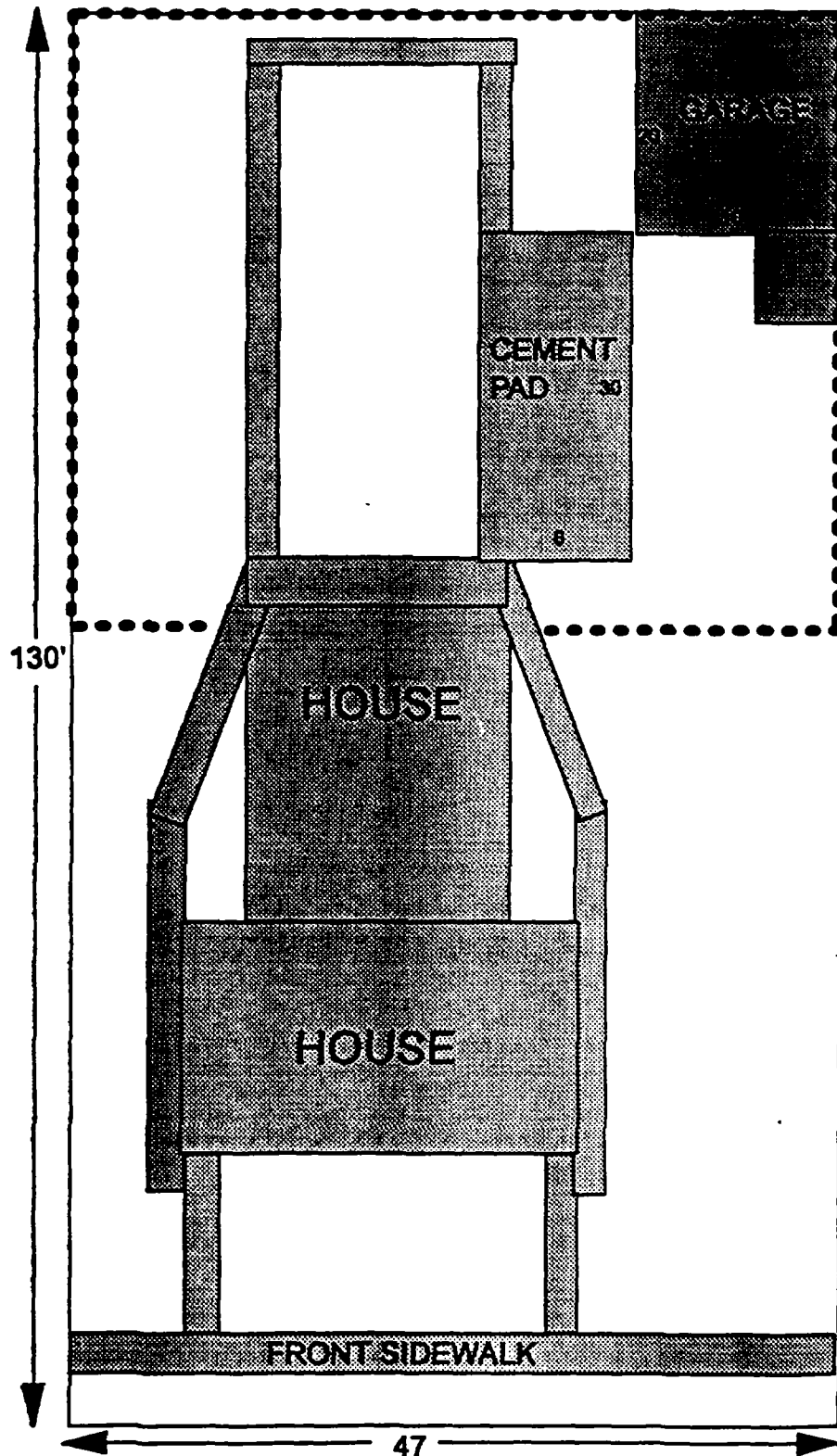
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR : 1624/26 Cleveland

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
56.52	4	15.93				sod	



1624/26 CLEVELAND

**TOTAL DIMENSIONS
130'X47'**

.....
FENCE



OHM Corporation
Paving One

Drawn By: DZ	Checked By:
Date: 8/1/94	Approved By:
Scale:	Drawing No:

1

2

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1628 Cleveland

Action Date: 8/19/94

Loadout: 8/19/94

Restoration Begins: 8/25/94

Restoration Completed: 8/26/94

***The remaining excavation yielded a total of 70.65 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 12 inches for this property.**

***Problems incurred: At this home owner came out waving around a gun. This stopped work until the police arrived.**

Equipment used :

*Generator	*2" sub pump	*Water truck
*X331 track hoe	*Homelite pump	
*TL 26 Resco backhoe	*Roller	
*JD444 loader	*Hand tamper	

***Subcontractors**

- *AWS
 - hauling special waste
- *Grantham
 - hauling stone and fill material
- *WMI
 - landfill

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

Site Address: 1628 Cleveland

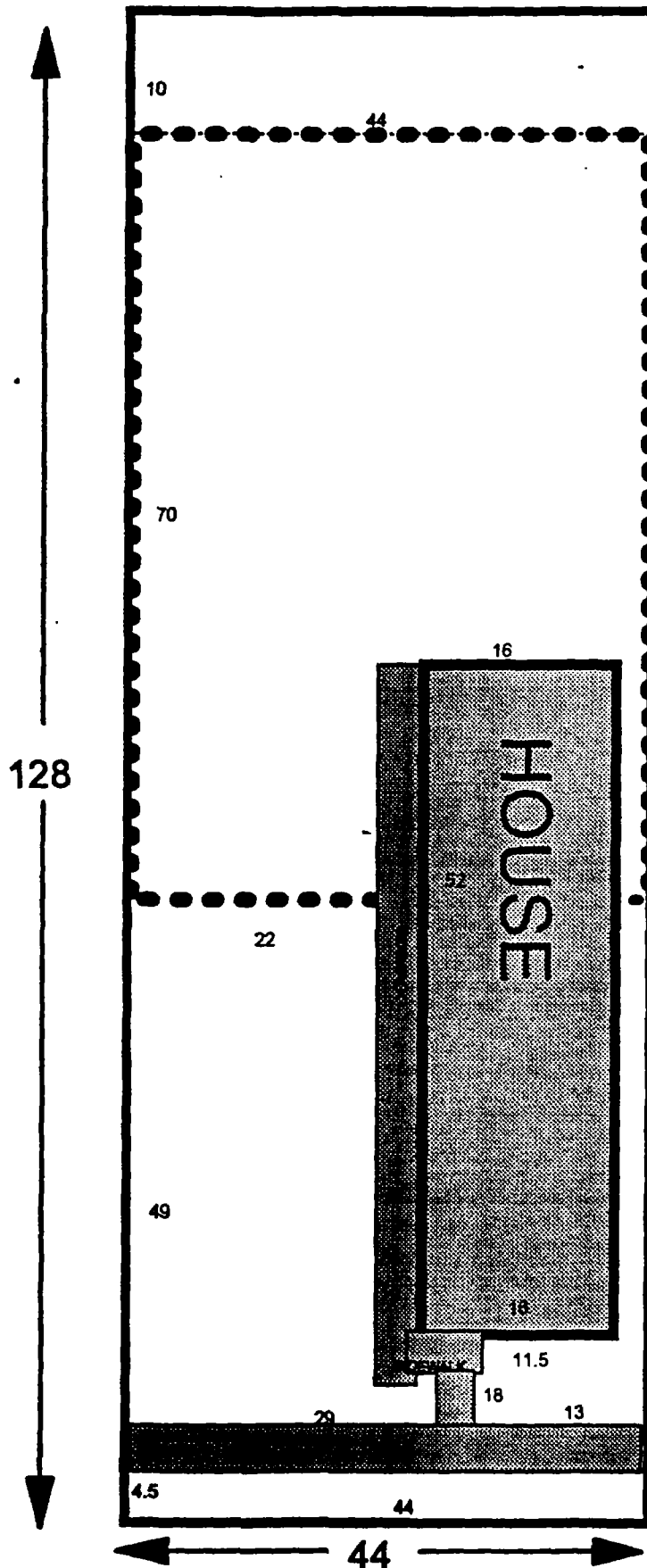
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

Pre-Determined Depth: 12"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR : 1628 Cleveland

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
56	2					sod	



TOTAL DIMENSIONS OF HOUSE AND SIDEWALK

HOUSE
 82X18=1476 SQ. FT.
 SIDEWALKS
 3.6X18=64.8
 3.6X18=64.8
 2.5X18=45
 TOTAL =1055

*Completed
 1st phase*

128

22

49

4.5

44

44

16

52

18

11.5

18

13

20

1628 CLEVELAND

TOTAL DIMENSIONS
 128'X44'

FENCE



ORM Corporation
 Planning, Inc.

Drawn By: DOUG ZIMMER	Checked By:
Date: 7/28/04	Approved By:
Scale:	Drawing No:

1

2

3

1630/32/34Cleveland

Action Date:8/8/94

Loadout:8/16/94

Restoration Begins:8/24/94

Restoration Completed:8/26/94

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 173.7 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM replaced flowers from flower bed

*Equipment utilized during excavation:

*2" pump

*TL26 Loader

*7 1/2 Roller

*444E Loader

*17 KW generator

*X331 Trackhoe

*1 1/2" pump

*Hand Tamper

*Subcontractors:

*Beelman

-hauling special waste

*L. Wolf

-hauling topsoil, sod, concrete

*Laidlaw

-landfill

*Grantham

-backfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1630/32/34 Cleveland

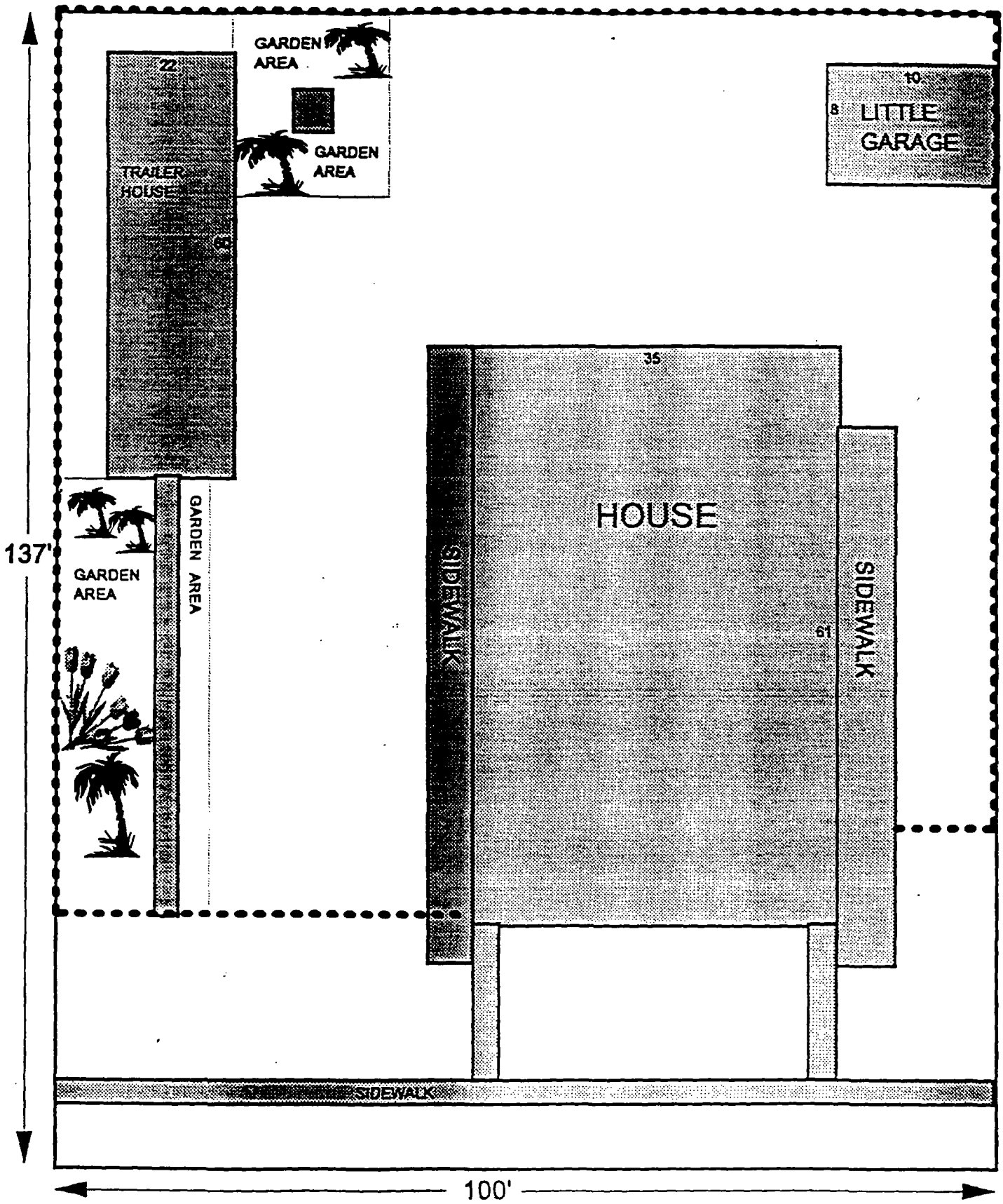
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473




QUANTITY SUMMARY FOR : 1630/32/34 Cleveland

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
173.7	25	47.79				sod	



1630/32/34 CLEV.

**TOTAL DIMENSIONS
145'X45'**

 FENCE		 OBM Corporation <small>Printing, Ohio</small>	
 GARDEN PLANTS		Drawn By: DZ Checked By: _____ Date: 8/1/94 Approved By: _____ Scale: _____ Drawing No: _____	

1

2

3

1708 Cleveland

Action Date: 3/26/96

Loadout: 3/26/96

Restoration Begins: 4/3/96

Restoration Completed: 4/12/96

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 295.15 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None on this site

*Equipment utilized during excavation:

*TL26

*17 KW Generator

*JD Tractor

*Hand Tamper

*Van

*2" Pump

*Bobcat Excavator

*Backhoe

*1 Ton Box

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow Landscape

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1708 Cleveland

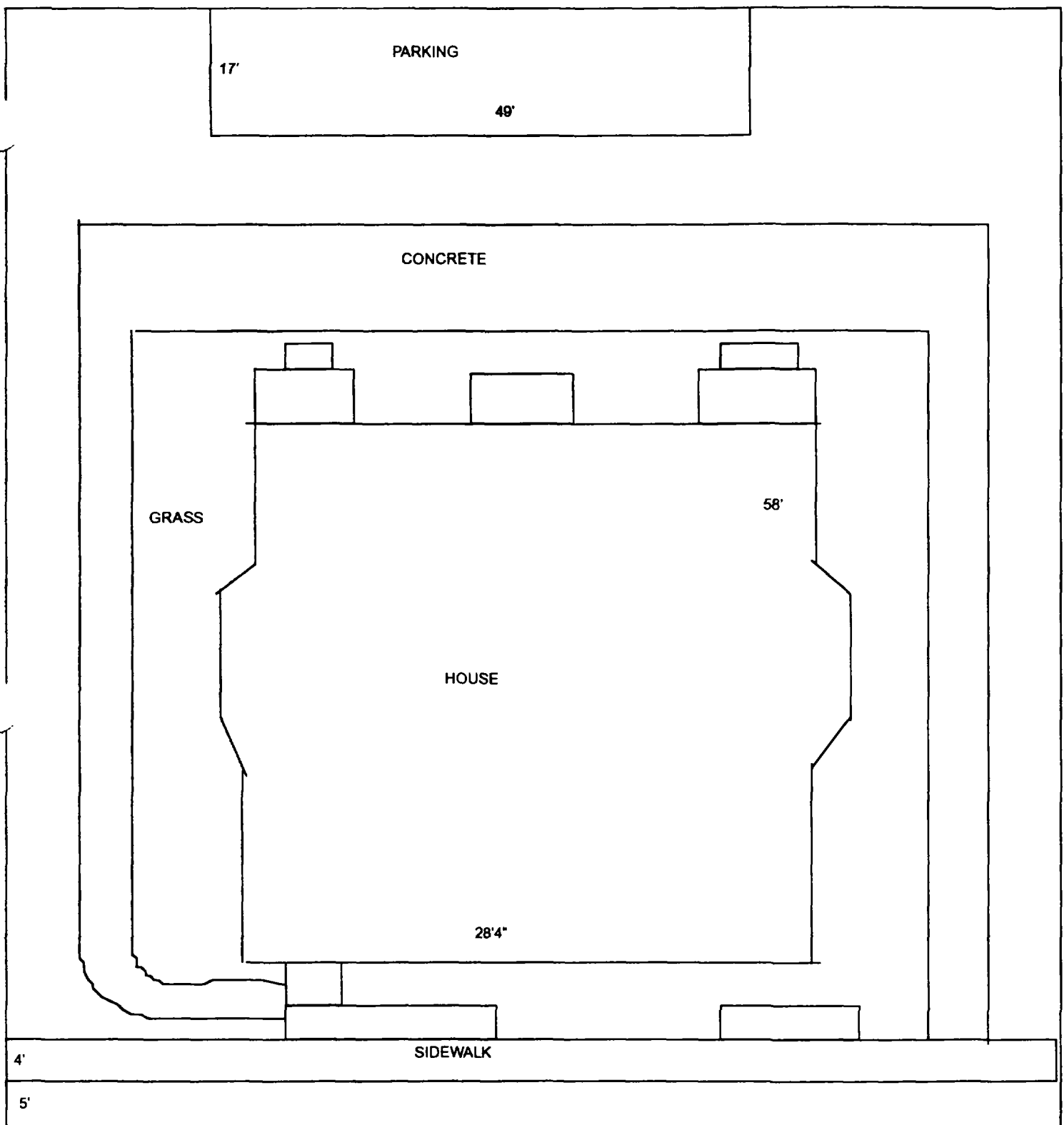
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR 1708 CLEVELAND

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
295.15	10 LOADS	191.12	27.7	30.15		SOD		



1708 CLEVELAND

TOTAL DIMENSIONS:

49' X 137'

	OHM Corporation Findlay, Ohio	
	Drawn By: AS	Checked By:
	Date: 12/7/95	Approved By:
	Scale: NTS	Drawing No:

1

2

3

1726 Cleveland

Action Date:8/11/94

Loadout:8/12/94

Restoration Begins:8/18/94

Restoration Completed:8/26/94

***The remaining excavation yielded a total of 70.65 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 12 inches for this property.**

***Problems incurred:After the site was completed the owner wanted the drive replaced even though the access agreement ask us to remove it. OHM replaced most of the driveway.**

Equipment used :

*Generator	*2" sub pump	*Water truck
*X331 track hoe		
*TL 26 Resco backhoe	*Roller	
*JD444 loader	*Hand tamper	

***Subcontractors**

- *AWS
 - hauling special waste
- *Grantham
 - hauling stone and fill material
- *WMI
 - landfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1726 Cleveland

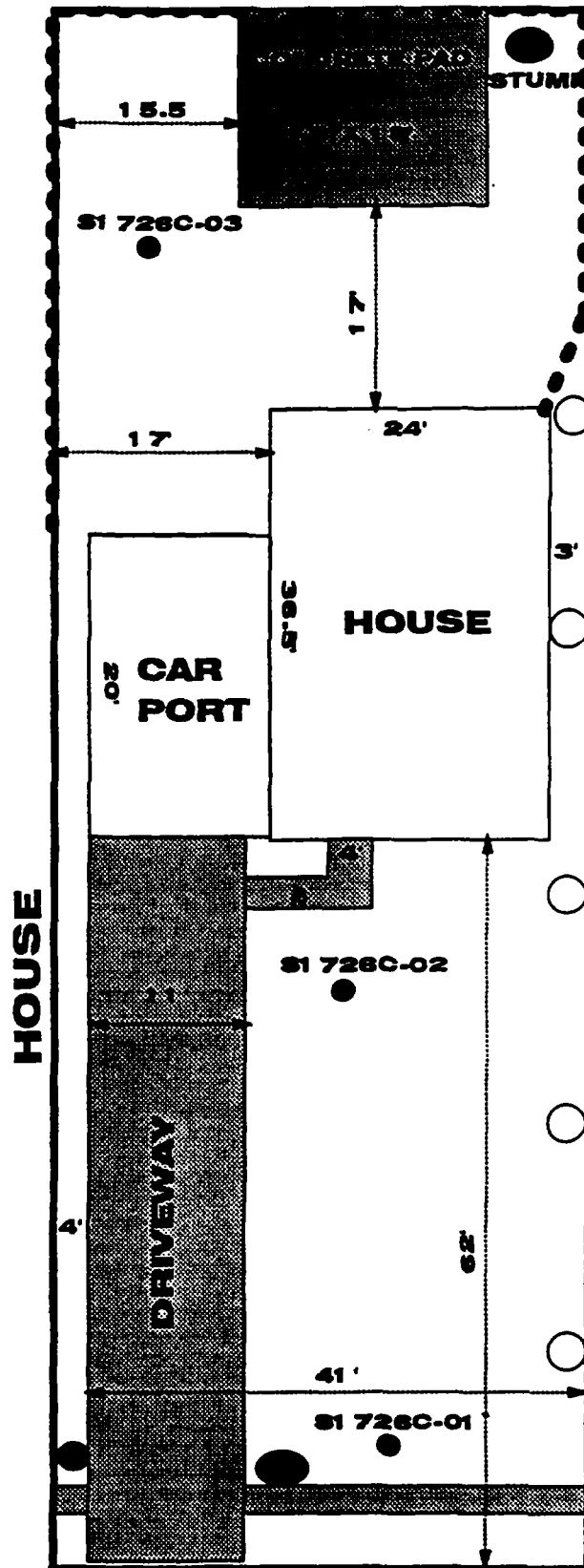
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 3"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473




QUANTITY SUMMARY FOR : 1726 Cleveland

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
70.65	6		28.7			sod	



1726 CLEVELAND

TOTAL DIMENSIONS
133.5' X 45'

TREES  FENCE  FENCE POLES 		OHM Corporation Findlay, Ohio	
Drawn By: RPR	Checked By:	Date: 7/28/94	Approved By:
Scale: NTS	Drawing No:		

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1728 Cleveland

Action Date:8/8/94

Loadout:8/13/94

Restoration Begins:8/18/94

Restoration Completed:8/20/94

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 131.15 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None

*Equipment utilized during excavation:

*2" pump

*TL26 Loader

*1 1/2" pump

*17 KW generator

*X331 Trackhoe

*444E Loader

*Subcontractors:

*Beelman

-hauling special waste

*L. Wolf

-hauling topsoil, sod, concrete

*Laidlaw

-landfill

*Grantham

-backfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1728 Cleveland

Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

QUANTITY SUMMARY FOR : 1728 Cleveland

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
84.78	8		28.26			sod	



GARDEN PLANTS



OEM Corporation
 P.O. Box 1000
 New York, NY 10001

Drawn By: DZ	Checked By:
Date: 8/1/94	Approved By:
Scale:	Drawing No:

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1919 Cleveland

Action Date: 5/3/96

Loadout: 5/3/96

Restoration Begins: 5/17/96

Restoration Completed: 6/12/96

*An excavation depth of 3 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 131.15 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*None on this site

*Equipment utilized during excavation:

*X331 Trackhoe

*TL26 Loader

*Hand Tamper

*7 1/2 Ton Roller

*17KW generator

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1919 Cleveland

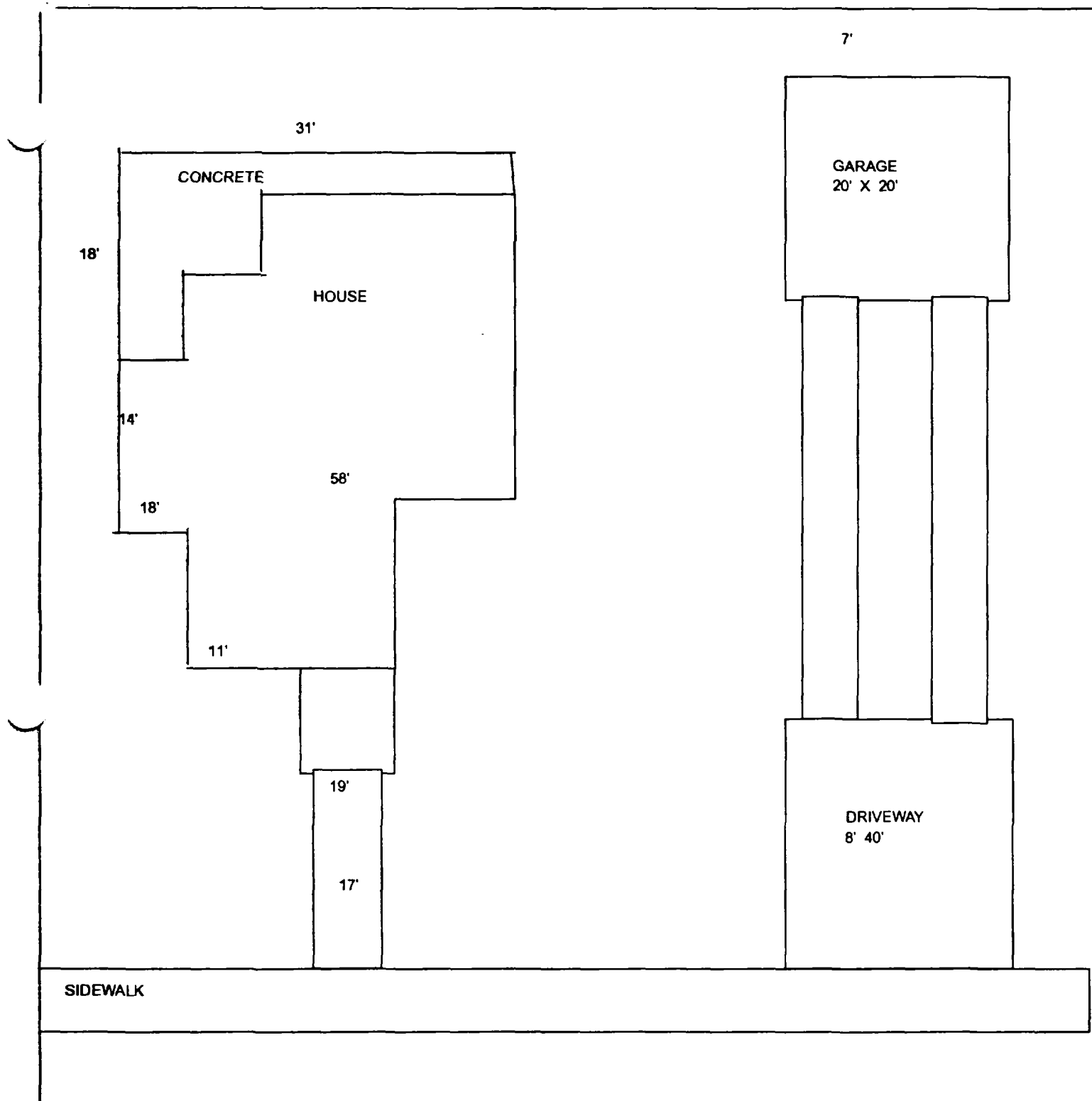
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 3"

**OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL**

QUANTITY SUMMARY FOR 1919 CLEVELAND

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
131.15	14 LOADS	72.63	14.75	29		SOD		



1919 CLEVELAND

TOTAL DIMENSIONS:

100' X 127'

	OHM Corporation <small>Findley, Ohio</small>	
	Drawn By: AS	Checked By:
	Date: 12/7/95	Approved By:
	Scale: NTS	Drawing No:

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1619/21 Delmar

Action Date:8/10/94

Loadout:8/11/94

Restoration Begins:8/20/94

Restoration Completed:8/25/94

***The remaining excavation yielded a total of 56.52 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 12 inches for this property.**

***Problems incurred: OHM broke and repaired a septic line during excavation. The line was about 6" under the surface and unmarked.**

Equipment used :

*Generator	*2" sub pump
*X331 track hoe	*Homelite pump
*TL 26 Resco backhoe	*Roller
*JD444 loader	*Hand tamper

***Subcontractors**

- *AWS**
 - hauling special waste
- *Grantham**
 - hauling stone and fill material
- *WMI**
 - landfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1619/21 Delmar

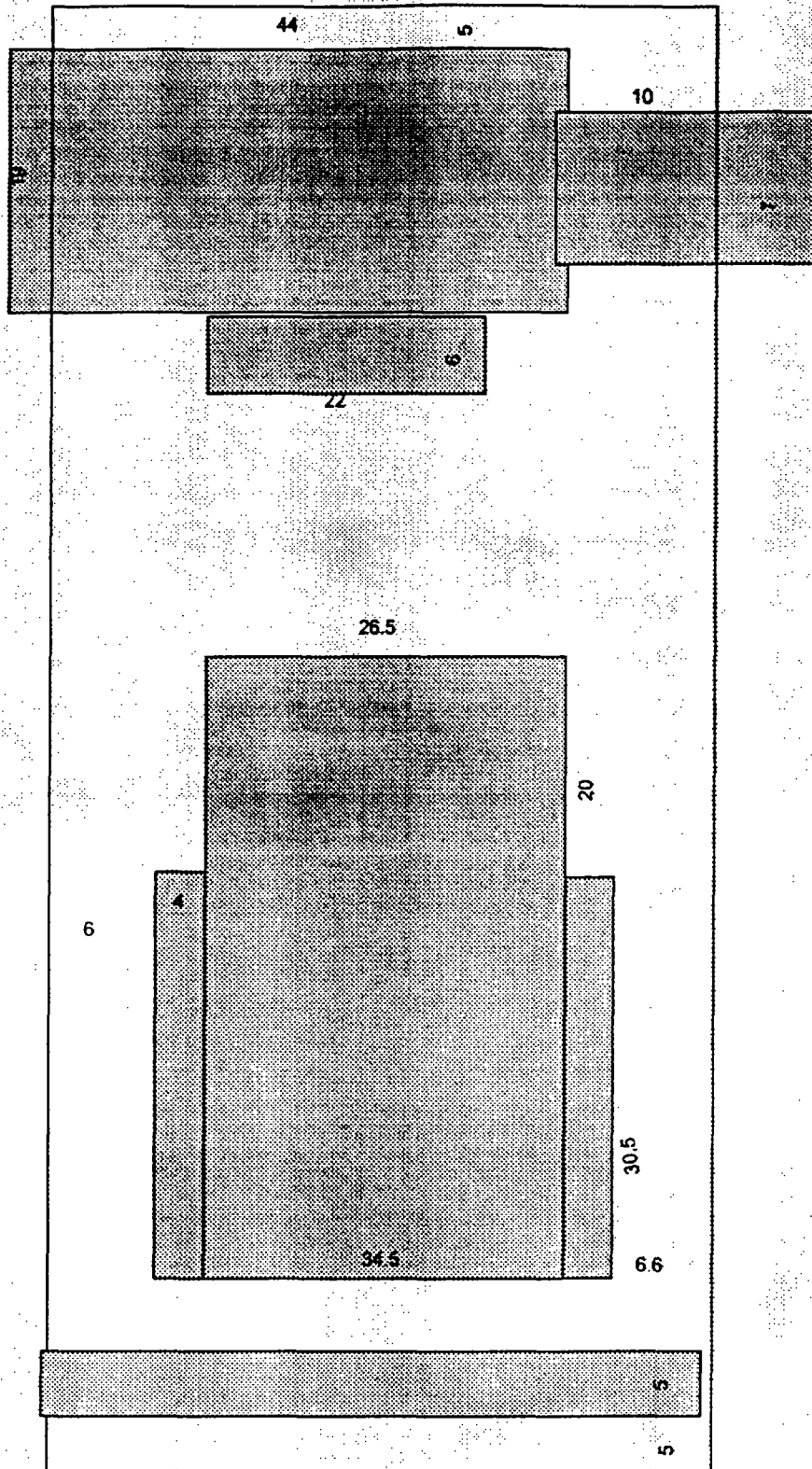
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
GRANITE CITY, IL
PROJECT 16473

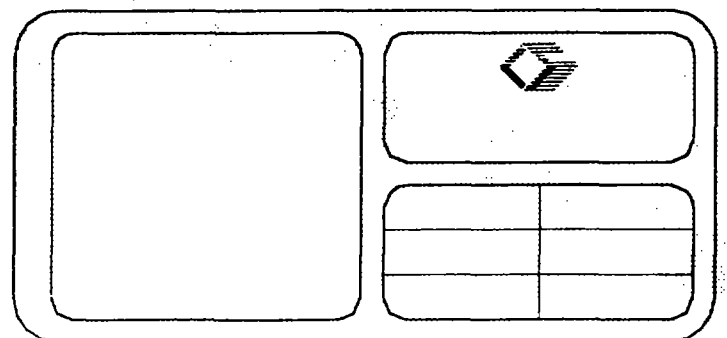
QUANTITY SUMMARY FOR : 1619/21 Delmar

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
56.52	7					sod	



1619/21 Delmar

TOTAL DIMENSIONS
47' X 142.5



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1624 Delmar

Action Date:8/13/94

Loadout:8/15/94

Restoration Begins:8/19/94

Restoration Completed:8/29/94

***The remaining excavation yielded a total of 84.78 cubic yards of special waste, which was shipped to WMI-Milam for disposal.**

***Excavation depth average at 12 inches for this property.**

***Problems incurred:** During restoration the sewer clean out trap was filled with soil. OHM flushed this out using the water truck.

Equipment used :

*Generator	*2" sub pump
*X331 track hoe	*Homelite pump
*TL 26 Resco backhoe	*Roller
*JD214 backhoe	*Hand tamper

***Subcontractors**

- *AWS
 - hauling special waste
- *Grantham
 - hauling stone and fill material
- *WMI
 - landfill

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1624 Delmar

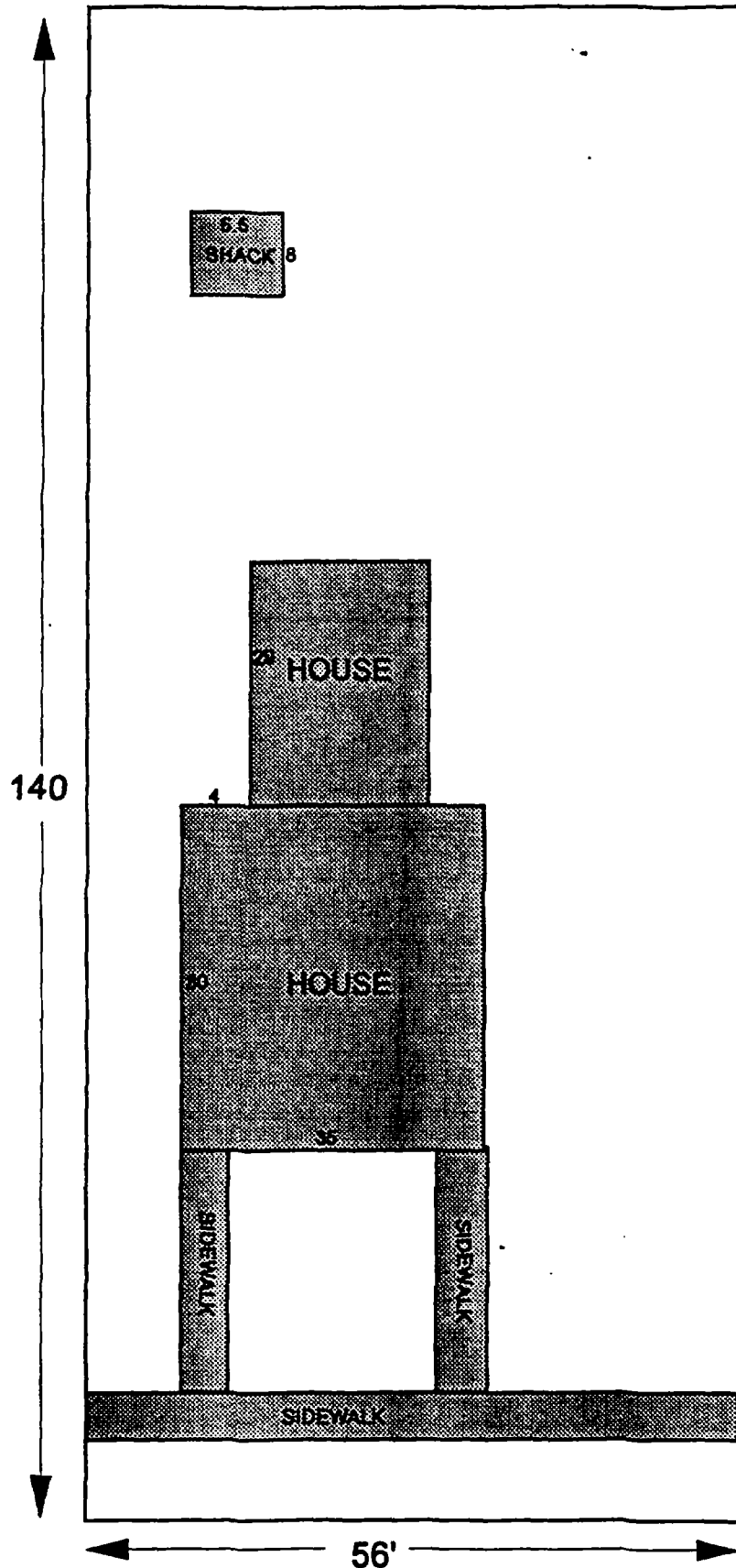
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
 GRANITE CITY, IL
 PROJECT 16473

QUANTITY SUMMARY FOR : 1624 Delmar

SPECIAL CU YD	BACKFILL LOAD	TOPSOIL CU YD	CA-6 TON	CA-7 TON	SAND CU YD	SOD/SEED	ROCK CU YD
84.78	11	36	12			sod	



624 DELMAR

**TOTAL DIMENSIONS
140'X56'**

OEM Corporation
Pricing 800

Drawn By: DZ	Checked By:
Date: 8/1/94	Approved By:
Scale:	Drawing No:

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1625 Delmar

Action Date:6/5/96

Loadout:6/13/96

Restoration Begins:6/20/96

Restoration Completed:6/22/96

*An excavation depth of 12 inches was established by USACE prior to work commencing.

*The excavation of special waste yielded a total of 169.22 cubic yards, which was shipped to WMI-Milam for disposal.

*Problems incurred:

*OHM damaged and repaired a drain clean out.

*Equipment utilized during excavation:

*2" pump

*17 KW generator

*TL26 Loader

*Bobcat excavator

*7 1/2 Roller

*Subcontractors:

*AWS

-hauling special waste

*Grantham

-hauling topsoil

*WMI

-landfill

*Prochnow

-sod

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL
SEPTEMBER 21, 1996

SITE NAME: 1625 Delmar

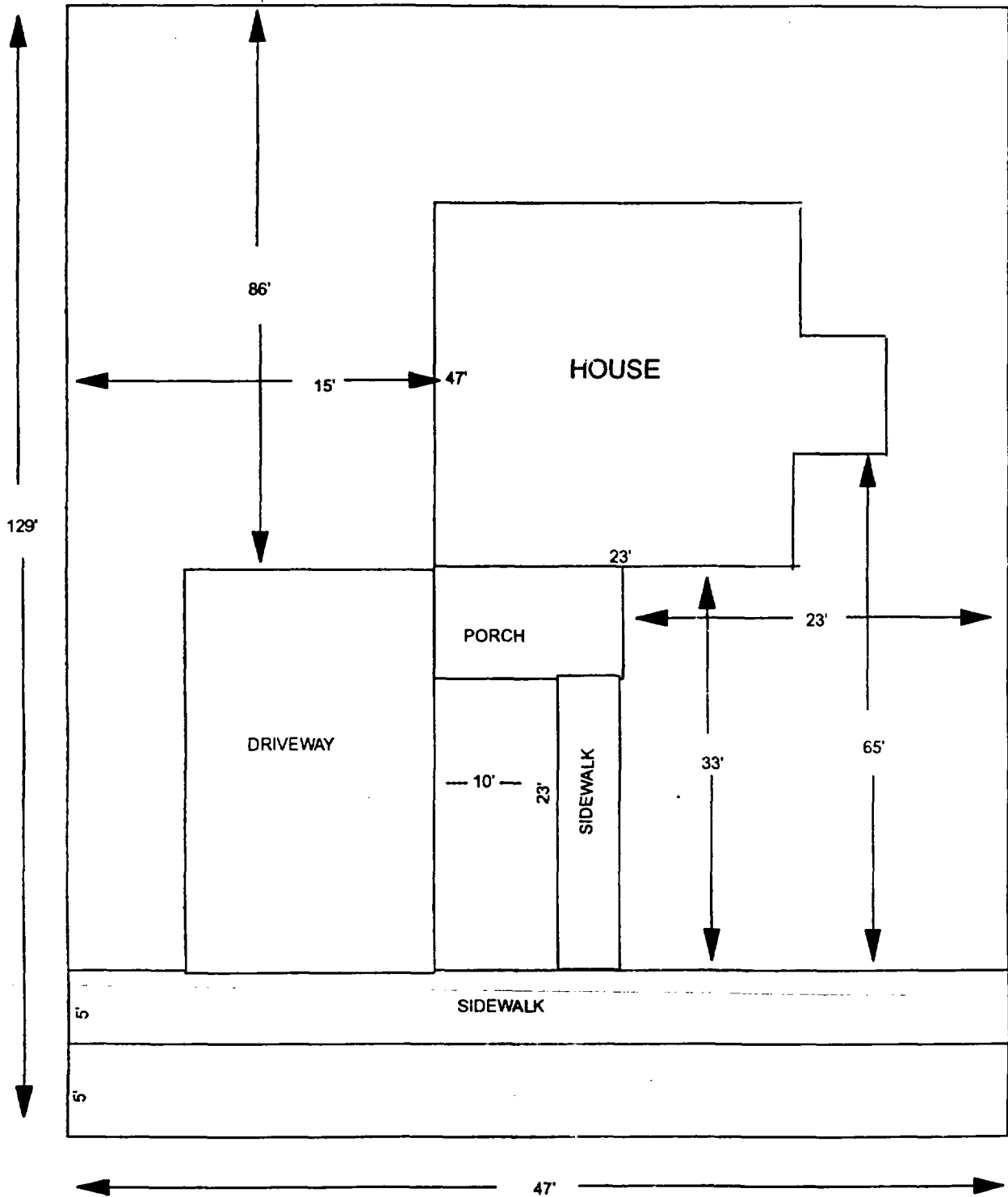
Stack emission sites were not sampled for verification due to the fact that a pre-determined depth for excavation was given to OHM by USACE.

PRE-DETERMINED DEPTH: 12"

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

QUANTITY SUMMARY FOR 1625 Delmar

SPECIAL WASTE	BACKFILL (LOADS)	TOPSOIL (TONS)	CA-6 (TONS)	CA-7 (TONS)	SAND (TONS)	SOD OR SEED	CONCRETE	OTHER
169.82	2	47.92	120.4			sod		



1625 DELMAR

		OHM Corporation Findlay, Ohio	
		Drawn By: MTB	Checked By:
		Date: 5/20/96	Approved By:
		Scale: NTS	Drawing No: